ISSN 0 370-1573

PHYSICS REPORTS

A Review Section of Physics Letters

MASTER INDEX

Volumes 1–200

NORTH-HOLLAND

PHYSICS REPORTS
A Review Section of Physics Letters

Editors: — *Fields:*

D.F. BREWER — Low-temperature physics
The University of Sussex, School of Mathematical and Physical Sciences, Brighton BN1 9QH, UK

G.E. BROWN — Nuclear physics
Institute for Theoretical Physics, State University of New York at Stony Brook, NY 11794, USA

J.I. BUDNICK — Condensed matter physics
Department of Physics, University of Connecticut, Storrs, CT 06268, USA

D.K. CAMPBELL — Non-linear dynamics
Los Alamos National Laboratory, MS B258, Los Alamos, NM 87545, USA

G.H.F. DIERCKSEN — Atomic and molecular physics
Max-Planck-Institut für Physik und Astrophysik, Institut für Astrophysik, Karl-Schwarzschild-Strasse 1, D-8046 Garching bei München, Germany

J. EICHLER — Atomic and molecular physics
Hahn-Meitner-Institut Berlin, Glienicker Strasse 100, 1000 Berlin 39, Germany

M.L. KLEIN — Statistical mechanics
Department of Chemistry, University of Pennsylvania, Philadelphia, PA 19104-6323, USA

A.A. MARADUDIN — Condensed matter physics
Department of Physics, University of California, Irvine, CA 92717, USA

E.W. McDANIEL — Atomic and molecular physics
Physics Department, Georgia Institute of Technology, Atlanta, GA 30332, USA

D.L. MILLS — Condensed matter physics
Department of Physics, University of California, Irvine, CA 92717, USA

R. PETRONZIO — High-energy physics
Dipartimento di Fisica, II Università Degli Studi di Roma – Tor Vergata, Via Orazio Raimondo, 00173 Rome, Italy

I. PROCACCIA — Statistical mechanics
Department of Chemical Physics, Weizmann Institute of Science, Rehovot 76100, Israel

D.N. SCHRAMM — Astrophysics and cosmology
Astronomy and Astrophysics Center, University of Chicago, Chicago, IL 60637, USA

A. SCHWIMMER — High-energy physics
Physics Department, Weizmann Institute of Science, Rehovot 76100, Israel

R. SLANSKY — High-energy physics
Los Alamos National Laboratory, MS B285, Los Alamos, NM 87545, USA

R.N. SUDAN — Plasma physics
Laboratory of Plasma Studies, Cornell University, 369 Upson Hall, Ithaca, NY 14853-7501, USA

In principle, papers are written and submitted on the invitation of one of the Editors, although the Editors would be glad to receive suggestions. Proposals for review articles (approximately 500–1000 words) should be sent by the author(s) to one of the Editors (see listing above). The Editor will evaluate proposals on the basis of timeliness and relevance and inform the author(s) as soon as possible.

Subscriptions: PHYSICS REPORTS is published as a review section of PHYSICS LETTERS. Each volume of PHYSICS REPORTS contains approximately 400 pp. PHYSICS REPORTS can be subscribed to separately. The price per volume amounts to Dfl. 300.00, postage included. Subscriptions to PHYSICS REPORTS can be ordered from booksellers and subscription agencies or directly from the Publisher: Elsevier Science Publishers B.V., Journals Department, P.O. Box 211, 1000 AE Amsterdam, The Netherlands.

Single copies of issues will be made available at a price which will depend on the size of the issue concerned. Single copies can only be ordered from the publisher and a check should be enclosed with the order. The single copy price of each issue will be published in the issue.

Claims for missing numbers should be made within three months, following the date of publication. The Publisher expects to supply missing numbers free only when losses have been sustained in transit and when stock will permit.

ELSEVIER SCIENCE PUBLISHERS B.V. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the written permission of the Publisher, Elsevier Science Publishers B.V., P.O. Box 103, 1000 AC Amsterdam, The Netherlands.

No responsibility is assumed by the Publisher for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein.

Special regulations for authors – Upon acceptance of an article by the journal, the author(s) will be asked to transfer copyright of the article to the publisher. This transfer will ensure the widest possible dissemination.

Submission to this journal of a paper entails the author's irrevocable and exclusive authorization of the publisher to collect any sums or considerations for copying or reproduction payable by third parties (as mentioned in article 17 paragraph 2 of the Dutch Copyright Act of 1912 and in the Royal Decree of June 20, 1974 (S. 351) pursuant to article 16b of the Dutch Copyright Act of 1912) and/or to act in or out of Court in connection therewith.

Special regulations for readers in the USA. – This journal has been registered with the Copyright Clearance Center, Inc. Consent is given for copying of articles for personal or internal use, or for the personal use of specific clients. This consent is given on the condition that the copier pays through the Center the per-copy fee stated in the code on the first page of each article for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. The appropriate fee should be forwarded with a copy of the first page of the article to the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, USA. If no code appears in an article, the author has not given broad consent to copy and permission to copy must be obtained directly from the author. All articles published prior to 1981 may be copied for a per-copy fee of US $2.50 also payable through the Center. (N.B. For review journals this fee is $0.20 per copy per page.) This consent does not extend to other kinds of copying, such as for general distribution, resale, advertising and promotion purposes, or for creating new collective works. Special written permission must be obtained from the publisher for such copying.

Published weekly — Printed in the Netherlands

PHYSICS REPORTS

PHYSICS REPORTS

A Review Section of Physics Letters

EDITORS

D.F. BREWER
BRIGHTON

G.E. BROWN
STONY BROOK USA

J.I. BUDNICK
STORRS USA

D.K. CAMPBELL
LOS ALAMOS USA

G.H.F. DIERCKSEN
GARCHING

J. EICHLER
BERLIN

M.L. KLEIN
PHILADELPHIA USA

A.A. MARADUDIN
IRVINE USA

E.W. McDANIEL
ATLANTA USA

D.L. MILLS
IRVINE USA

R. PETRONZIO
ROME

I. PROCACCIA
REHOVOT

D.N. SCHRAMM
CHICAGO USA

A. SCHWIMMER
REHOVOT

R. SLANSKY
LOS ALAMOS USA

R.N. SUDAN
ITHACA USA

MASTER INDEX VOLUMES 1–200

NORTH-HOLLAND

© ELSEVIER SCIENCE PUBLISHERS B.V., 1991

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the written permission of the Publisher, Elsevier Science Publishers B.V., P.O. Box 103, 1000 AC Amsterdam, The Netherlands.

No responsibility is assumed by the Publisher for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein.

Special regulations for authors – Upon acceptance of an article by the journal, the author(s) will be asked to transfer copyright of the article to the publisher. This transfer will ensure the widest possible dissemination of information.

Submission to this journal of an article entails the author's irrevocable and exclusive authorization of the publisher to collect any sums or considerations for copying or reproduction payable by third parties (as mentioned in article 17 paragraph 2 of the Dutch Copyright Act of 1912 and in the Royal Decree of June 20, 1974 (S. 351) pursuant to article 16b of the Dutch Copyright Act of 1912) and/or to act in or out of Court in connection therewith.

Special regulations for readers in the USA. – This journal has been registered with the Copyright Clearance Center, Inc. Consent is given for copying of articles for personal or internal use, or for the personal use of specific clients. This consent is given on the condition that the copier pays through the Center the per-copy fee stated in the code on the first page of each article for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. The appropriate fee should be forwarded with a copy of the first page of the article to the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, USA. If no code appears in an article, the author has not given broad consent to copy and permission to copy must be obtained directly from the author. All articles published prior to 1981 may be copied for a per-copy fee of US $2.50 also payable through the Center. (N.B. For review journals this fee is $0.20 per copy per page.) This consent does not extend to other kinds of copying, such as for general distribution, resale, advertising and promotion purposes, or for creating new collective works. Special written permission must be obtained from the publisher for such copying.

This volume is printed on acid-free paper.

MASTER INDEX

Volumes 1–200

AUTHOR INDEX

Abarbanel, H.D.I., J.D. Bronzan, R.L. Sugar and A.R. White, Reggeon field theory: formulation and use 21 (1975) 119
Abdel-Raouf, M.A., On the variational methods for bound-state and scattering problems 84 (1982) 163
Abdel-Raouf, M.A., On the variational methods for bound-state and scattering problems II 108 (1984) 1
Abdullaev, F.Kh., Dynamical chaos of solitons and nonlinear periodic waves 179 (1989) 1
Abers, E.S. and B.W. Lee, Gauge theories 9 (1973) 1
Abraham, F.F., On the thermodynamics, structure and phase stability of the nonuniform fluid state 53 (1979) 93
Abraham, F.F., The phases of two-dimensional matter, their transitions, and solid-state stability: A perspective via computer simulation of simple atomic systems 80 (1981) 339
Abrahams, E., Conductivity scaling and localization 67 (1980) 9
Abrikosov, A.A., T.A. Leskova and D.L. Mills, eds, Electromagnetic interactions in condensed matter, a Festschrift volume of Physics Reports on the occasion of the 60th birthday of Professor V.M. Agranovich 194 (1990) 239
Accardi, L., Topics in quantum probability 77 (1981) 169
Ackerhalt, J.R., P.W. Milonni and M.-L. Shih, Chaos in quantum optics 128 (1985) 205
Adam, J.A., Asymptotic solutions and spectral theory of linear wave equations 86 (1982) 217
Adam, J.A., Critical layer singularities and complex eigenvalues in some differential equations of mathematical physics 142 (1986) 263
Adeva, B., *see* MARK J Collaboration 109 (1984) 131
Agamalyan, M.M., G.M. Drabkin and V.I. Sbitnev, Spatial spin resonance of polarized neutrons. A tunable slow neutron filter 168 (1988) 265
Agassi, D., H.A. Weidenmüller and G. Mantzouranis, The statistical theory of nuclear reactions for strongly overlapping resonances as a theory of transport phenomena 22 (1975) 145
Aglitsky, E.V., *see* L.N. Ivanov 164 (1988) 315
Ahrens, T.J., *see* B. Svendsen 180 (1989) 333

Single orders for this issue

PHYSICS REPORTS (Review Section of Physics Letters) Master Index Volumes 1–200.

Copies of this issue may be obtained at the price given below. All orders should be sent directly to the Publisher. Orders must be accompanied by check.

Single issue price Dfl. 80.00, postage included.

Ailawadi, N.K., Equilibrium theories of simple liquids 57 (1980) 241
Aitken, M.J., Archaeological involvements of physics 40 (1978) 277
Akaishi, Y., *see* I. Šlaus 173 (1989) 257
Akhromeyeva, T.S., S.P. Kurdyumov, G.G. Malinetskii and A.A. Samarskii, Nonstationary dissipative structures and diffusion-induced chaos in nonlinear media 176 (1989) 189
Akutsu, Y., *see* M. Wadati 180 (1989) 247
Alber, G. and P. Zoller, Laser excitation of electronic wave packets in Rydberg atoms 199 (1991) 231
Alberi, G. and G. Goggi, Diffraction of subnuclear waves 74 (1981) 1
Albeverio, S. and R. Høegh-Krohn, Stochastic methods in quantum field theory and hydrodynamics 77 (1981) 193
Alekseev, V.A. and I.T. Iakubov, Non-ideal plasmas of metal vapours 96 (1983) 1
Alekseev, V.M. and M.V. Yakobson, Symbolic dynamics and hyperbolic dynamic systems 75 (1981) 287
Alessandrini, V., D. Amati, M. Le Bellac and D. Olive, The operator approach to dual multiparticle theory 1 (1971) 269
Alexander, J.M., *see* L.C. Vaz 69 (1981) 373
Alexander, J.M., *see* L.C. Vaz 97 (1983) 1
Alexander, J.M., *see* R. Freifelder 133 (1986) 315
Alhassid, Y., *see* R. Balian 131 (1986) 1
Alkhazov, G.D., S.L. Belostotsky and A.A. Vorobyov, Scattering of 1 GeV protons on nuclei 42 (1978) 89
Allaart, K., E. Boeker, G. Bonsignori, M. Savoia and Y.K. Gambhir, The broken pair model for nuclei and its recent applications 169 (1988) 209
Alladin, S.M. and K.S.V.S. Narasimhan, Gravitational interactions between galaxies 92 (1982) 339
Allen, L. and C.R. Stroud Jr., Broadening and saturation in n-photon absorption 91 (1982) 1
Almond, P.R., Some applications of particle accelerators to cancer research and treatment 17 (1975) 1
Alner, G.J., *see* UA5 Collaboration 154 (1987) 247
Alpgård, K., *see* UA5 Collaboration 154 (1987) 247
Alster, J. and J. Warszawski, Pion–nucleus charge exchange reactions 52 (1979) 87
Altarelli, G., Partons in quantum chromodynamics 81 (1982) 1
Amaldi, E., From the discovery of the neutron to the discovery of nuclear fission 111 (1984) 1
Amati, D., *see* V. Alessandrini 1 (1971) 269
Amati, D., K. Konishi, Y. Meurice, G.C. Rossi and G. Veneziano, Non-perturbative aspects in supersymmetric gauge theories 162 (1988) 169
Amati, D., Gravity from strings 184 (1989) 105
Amusia, M.Ya., "Atomic" bremsstrahlung 162 (1988) 249
Anastasio, M.R., L.S. Celenza, W.S. Pong and C.M. Shakin, Relativistic nuclear structure physics 100 (1983) 327
Anderer, P., *see* UA5 Collaboration 154 (1987) 247
Andersen, N., J. Gallagher and I.V. Hertel, Collisional alignment and orientation of atomic outer shells. I. Direct excitation by electron and atom impact 165 (1988) 1
Anderson, P.W., Gregory Wannier. Biographical sketch 110 (1984) 271
Anderson, P.W., Chemical pseudopotentials 110 (1984) 311
Anderson, P.W., Problems and issues in the RVB theory of high T_c superconductivity 184 (1989) 195
Andersson, B., G. Gustafson, G. Ingelman and T. Sjöstrand, Parton fragmentation and string dynamics 97 (1983) 31
Aniel, T., *see* L.C. Maximon 147 (1987) 189
Ansorge, R.E., *see* UA5 Collaboration 154 (1987) 247

Anyas-Weiss, N., J.C. Cornell, P.S. Fisher, P.N. Hudson, A. Menchaca-Rocha, D.J. Millener, A.D. Panagiotou, D.K. Scott, D. Strottman, D.M. Brink, B. Buck, P.J. Ellis and T. Engeland, Nuclear structure of light nuclei using the selectivity of high energy transfer reactions with heavy ions 12 (1974) 201
Applegate, J.H., Neutrino diffusion, primordial nucleosynthesis and the *r*-process 163 (1988) 141
Apsley, N., *see* G.G. Roberts 60 (1980) 59
Arenhövel, H., *see* H.J. Weber 36 (1978) 277
Armour, E.A.G., The theory of low-energy positron collisions with molecules 169 (1988) 1
Armstrong, R.L., Structural properties and lattice dynamics of 5d transition metal antifluorite crystals 57 (1980) 343
Arnold, G.B., *see* E.L. Wolf 91 (1982) 31
Arnold, L., Qualitative theory of stochastic systems and its applications in physics 77 (1981) 215
Aronov, I.E. and O.N. Baranetz, Cyclotron parametric resonance in semiconductors 197 (1990) 99
Artru, X., Classical string phenomenology. How strings work 97 (1983) 147
Åsman, B., *see* UA5 Collaboration 154 (1987) 247
Asseo, E. and H. Sol, Extragalactic magnetic fields 148 (1987) 307
Athanassoula, E., The spiral structure of galaxies 114 (1984) 319
Atkins, H.L., Radiopharmaceuticals 21 (1975) 315
Attenborough, K., Acoustical characteristics of porous materials 82 (1982) 179
Au, C.-K., *see* G. Feinberg 180 (1989) 83
Aubry, S., Application of the concept of transition by breaking of analyticity to the Peierls chain 103 (1984) 125
Aubry, S., Trajectories of the twist map with minimal action and connection with incommensurate structures 103 (1984) 127
Auerbach, N., Coulomb effects in nuclear structure 98 (1983) 273
Austern, N., Y. Iseri, M. Kamimura, M. Kawai, G. Rawitscher and M. Yahiro, Continuum-discretized coupled-channels calculations for three-body models of deuteron–nucleus reactions 154 (1987) 125
Aymar, M., Rydberg series of alkaline-earth atoms Ca through Ba. The interplay of laser spectroscopy and multichannel quantum defect analysis 110 (1984) 163

Bäckman, S.-O., G.E. Brown and J.A. Niskanen, The nucleon–nucleon interaction and the nuclear many-body problem 124 (1985) 1
Badalyan, A.M., L.P. Kok, M.I. Polikarpov and Yu.A. Simonov, Resonances in coupled channels in nuclear and particle physics 82 (1982) 31
Baer, M., Integral equation approach to atom–diatom exchange processes 178 (1989) 99
Baier, V.N., V.S. Fadin, V.A. Khoze and E.A. Kuraev, Inelastic processes in high energy quantum electrodynamics 78 (1981) 293
Bailin, D. and A. Love, Superfluidity and superconductivity in relativistic fermion systems 107 (1984) 325
Baker, M. and K.A. Ter-Martirosyan, Gribov's Reggeon calculus: its physical basis and implications 28 (1976) 1
Bakos, J.S., AC Stark effect and multiphoton processes in atoms 31 (1977) 209
Balazs, N.L. and B.K. Jennings, Wigner's function and other distribution functions in mock phase spaces 104 (1984) 347
Balazs, N.L. and A. Voros, Chaos on the pseudosphere 143 (1986) 109
Baldwin, G.C., Gamma-ray lasers? 87 (1982) 1
Balian, R., Y. Alhassid and H. Reinhardt, Dissipation in many-body systems: A geometric approach based on information theory 131 (1986) 1

Ball, R.D., Chiral gauge theory 182 (1989) 1
Baltz, A.J., *see* M.S. Hussein 113 (1984) 133
Bander, M., Theories of quark confinement 75 (1981) 205
Bando, M., T. Kugo and K. Yamawaki, Nonlinear realization and hidden local symmetries 164 (1988) 217
Bang, J.M., F.G. Gareev, W.T. Pinkston and J.S. Vaagen, One- and two-nucleon overlap functions in nuclear physics 125 (1985) 253
Barakat, R. and J. Blake, Theory of photoelectron counting statistics: an essay 60 (1980) 225
Baranetz, O.N., *see* I.E. Aronov 197 (1990) 99
Barber, D.P., *see* MARK J Collaboration 63 (1980) 337
Barber, D.P., *see* MARK J Collaboration 109 (1984) 131
Barber, M.N., An introduction to the fundamentals of the renormalization group in critical phenomena 29 (1977) 1
Barber, M.N., Phase transitions in two dimensions 59 (1980) 375
Bardeen, J.M. and T. Piran, General relativistic axisymmetric rotating systems: coordinates and equations 96 (1983) 205
Barish, B.C., Experimental aspects of high energy neutrino physics 39 (1978) 279
Barish, B.C. and R. Stroynowski, The physics of the τ lepton 157 (1988) 1
Baron, E., Collapse calculations in stars of mass less than $15M_{\odot}$ 163 (1988) 37
Barrette, J., *see* P. Braun-Munzinger 87 (1982) 209
Barrow, J.D. and F.J. Tipler, Analysis of the generic singularity studies by Belinskii, Khalatnikov, and Lifschitz 56 (1979) 371
Barrow, J.D., Chaotic behaviour in general relativity 85 (1982) 1
Barrow, J.D. and D.H. Sonoda, Asymptotic stability of Bianchi type universes 139 (1986) 1
Barton, G. and N.S.J. Fawcett, Quantum electromagnetics of an electron near mirrors 170 (1988) 1
Bartschat, K., Excitation and ionization of atoms by interaction with electrons, positrons, protons and photons 180 (1989) 1
Barut, A.O. and I.H. Duru, Path integral formulation of quantum electrodynamics from classical particle trajectories 172 (1989) 1
Barvinsky, A.O. and G.A. Vilkovisky, The generalized Schwinger–DeWitt technique in gauge theories and quantum gravity 119 (1985) 1
Basharov, A.M., *see* A.I. Maimistov 191 (1990) 1
Bass, F.G. and A.P. Tetervov, High-frequency phenomena in semiconductor superlattices 140 (1986) 237
Bass, F.G., Yu.S. Kivshar, V.V. Konotop and Yu.A. Sinitsyn, Dynamics of solitons under random perturbations 157 (1988) 63
Bass, F.G. and N.N. Nasonov, Nonlinear electromagnetic–spin waves 189 (1990) 165
Bass, J.D., *see* B. Svendsen 180 (1989) 333
Bassetto, A., M. Ciafaloni and G. Marchesini, Jet structure and infrared sensitive quantities in perturbative QCD 100 (1983) 201
Basu, D., S.C. Mukherjee and D.P. Sural, Electron capture processes in ion–atom collisions 42 (1978) 145
Bates, C.A., Jahn–Teller effects in paramagnetic crystals 35 (1978) 187
Bates, D.R., Other men's flowers 35 (1978) 305
Bates, R.H.T., Astronomical speckle imaging 90 (1982) 203
Baur, G. and D. Trautmann, The break-up of the deuteron and stripping to unbound states 25 (1976) 293
Baur, G., F. Rösel, D. Trautmann and R. Shyam, Fragmentation processes in nuclear reactions 111 (1984) 333

Baur, G., *see* C.A. Bertulani 163 (1988) 299
Baus, M. and J.-P. Hansen, Statistical mechanics of simple Coulomb systems 59 (1980) 1
Bayfield, J.E., Excited atomic and molecular states in strong electromagnetic fields 51 (1979) 317
Bayman, B.F. and Y.C. Tang, Anomalons in relativistic heavy-ion collisions 147 (1987) 155
Beaulieu, L., Perturbative gauge theories 129 (1985) 1
Becker, U., *see* MARK J Collaboration 63 (1980) 337
Becker, U., *see* MARK J Collaboration 109 (1984) 131
Becker, W. and J.K. McIver, Many-particle quantum theory for a class of free-electron devices 154 (1987) 205
Beckerman, M., Subbarrier fusion of atomic nuclei 129 (1985) 145
Beckmann, P., Spectral densities and nuclear spin relaxation in solids 171 (1988) 85
Bég, M.A.B. and A. Sirlin, Gauge theories of weak interactions II 88 (1982) 1
Behmenburg, W., *see* F. Schuller 12 (1974) 273
Belkić, Dž., R. Gayet and A. Salin, Electron capture in high-energy ion–atom collisions 56 (1979) 279
Bell, J.S., Introductory remarks 137 (1986) 5
Bell, J.S., Quantum field theory without observers 137 (1986) 49
Bellini, G., L. Foà, M.A. Giorgi, J. Sandweiss, L. Montanet, S. Reucroft and J.D. Prentice, Lifetime measurements in the 10^{-13}s range 83 (1982) 1
Beloshitsky, V.V. and F.F. Komarov, Electromagnetic radiation of relativistic channeling particles (the Kumakhov effect) 93 (1982) 117
Beloshitsky, V.V., F.F. Komarov and M.A. Kumakhov, Dechanneling, flux-peaking and energy losses of fast charged particles penetrating through thick crystals 139 (1986) 293
Belostotsky, S.L., *see* G.D. Alkhazov 42 (1978) 89
Benda, H., *see* MARK J Collaboration 63 (1980) 337
Béné, G.J., Nuclear magnetism of liquid systems in the earth field range 58 (1980) 213
Bengtsson, R., T. Berggren and Ch. Gustafsson, DWIA analysis of quasifree proton–proton scattering in nuclei at intermediate energies 41 (1978) 191
Benight, A.S., *see* R.M. Wartell 126 (1985) 67
Berdugo, J., *see* MARK J Collaboration 109 (1984) 131
Berg, B.A., Quantum fluctuations in a multi-instanton background 67 (1980) 133
Berger, Ch. and W. Wagner, Photon photon reactions 146 (1987) 1
Berggren, T., *see* R. Bengtsson 41 (1978) 191
Berglund, S., *see* UA5 Collaboration 154 (1987) 247
Bergman, D.J., The dielectric constant of a composite material – A problem in classical physics 43 (1978) 377
Bergmann, G., Amorphous metals and their superconductivity 27 (1976) 159
Bergmann, G., Weak localization in thin films. A time-of-flight experiment with conduction electrons 107 (1984) 1
Bergström, L., *see* S. Fredriksson 144 (1987) 187
Berkelman, K., Upsilon spectroscopy at CESR 98 (1983) 145
Berkelman, K., *see* UA5 Collaboration 154 (1987) 247
Berkov, A.V., *see* V.M. Emel'yanov 143 (1986) 1
Berlad, G., *see* S. Fredriksson 144 (1987) 187
Berman, P.R., Effects of collisions on linear and non-linear spectroscopic line shapes 43 (1978) 101
Bertin, G., On the density wave theory for normal spiral galaxies 61 (1980) 1
Bertlmann, R.A., Bounds to Green functions and lower bounds to the spectrum of a positive Hamiltonian 134 (1986) 279
Bertrand, D., *see* UA5 Collaboration 154 (1987) 247
Bertsch, G.F. and S.F. Tsai, A study of the nuclear response function 18 (1975) 125

Bertsch, G.F. and S. Das Gupta, A guide to microscopic models for intermediate energy heavy ion collisions 160 (1988) 189
Bertulani, C.A. and G. Baur, Electromagnetic processes in relativistic heavy ion collisions 163 (1988) 299
Bes, D.R., R.A. Broglia and B.S. Nilsson, Microscopic description of isoscalar and isovector giant quadrupole resonances 16 (1975) 1
Bes, D.R., *see* P.F. Bortignon 30 (1977) 305
Bes, D.R., R.A. Broglia, O. Hansen and O. Nathan, Isovector pairing vibrations 34 (1977) 1
Bhattacharyya, B., *see* B. Chakraborty 114 (1984) 181
Bilal, A., The three-dimensional Ising model and superstring theory 184 (1989) 113
Bilenky, S.M. and B. Pontecorvo, Lepton mixing and neutrino oscillations 41 (1978) 225
Bilenky, S.M. and J. Hošek, Glashow–Weinberg–Salam theory of electroweak interactions and the neutral currents 90 (1982) 73
Bilgram, J.H., Dynamics at the solid–liquid transition: Experiments at the freezing point 153 (1987) 1
Bilpuch, E.G., A.M. Lane, G.E. Mitchell and J.D. Moses, Fine structure of analogue states 28 (1976) 145
Bilpuch, E.G., *see* G.E. Mitchell 117 (1985) 1
Birkelund, J.R., *see* W.U. Schröder 45 (1978) 301
Birkelund, J.R., L.E. Tubbs, J.R. Huizenga, J.N. De and D. Sperber, Heavy-ion fusion: Comparison of experimental data with classical trajectory models 56 (1979) 107
Birn, J., *see* K. Schindler 47 (1978) 109
Biskupič, S., *see* V. Kvasnička 90 (1982) 159
Bjørnholm, S., *see* W.J. Swiatecki 4 (1972) 325
Blagojević, M. and P. Senjanović, The quantum field theory of electric and magnetic charge 157 (1988) 233
Blaizot, J.P., Nuclear compressibilities 64 (1980) 171
Blake, J., *see* R. Barakat 60 (1980) 225
Blandford, R. and D. Eichler, Particle acceleration at astrophysical shocks: A theory of cosmic ray origin 154 (1987) 1
Blankenbecler, R., *see* D. Sivers 23 (1976) 1
Blasi, N., *see* M. Waroquier 148 (1987) 249
Blinc, R., Magnetic resonance and relaxation in structurally incommensurate systems 79 (1981) 331
Bludman, S.A., General relativistic core collapse with a soft nuclear equation of state 163 (1988) 47
Blum, K. and H. Kleinpoppen, Electron–photon angular correlation in atomic physics 52 (1979) 203
Blum, K. and H. Kleinpoppen, Angular correlation studies of heavy-particle impact excitation of atoms 96 (1983) 251
Bobin, J.L., High intensity laser plasma interaction 122 (1985) 173
Bodwin, G.T. and D.R. Yennie, Hyperfine splitting in positronium and muonium 43 (1978) 267
Boeker, E., *see* K. Allaart 169 (1988) 209
Boeuf, A., *see* R. Caciuffo 152 (1987) 1
Bogdanov, A.V., G.V. Dubrovskii, Yu.E. Gorbachev and V.M. Strelchenya, Theory of vibrational and rotational excitation of polyatomic molecules 181 (1989) 121
Bohigas, O., A.M. Lane and J. Martorell, Sum rules for nuclear collective excitations 51 (1979) 267
Bohlen, H.G., *see* W. von Oertzen 19 (1975) 1
Böhm, A., *see* MARK J Collaboration 63 (1980) 337
Böhm, A., *see* MARK J Collaboration 109 (1984) 131
Bohm, D., B.J. Hiley and P.N. Kaloyerou, An ontological basis for the quantum theory 144 (1987) 321

Bohm, D. and B.J. Hiley, Non-locality and locality in the stochastic interpretation of quantum mechanics 172 (1989) 93
Bohnert, K., *see* B. Hönerlage 124 (1985) 161
Boisson, J.P., R. Piepenbring and W. Ogle, The effective neutron–proton interaction in rare-earth nuclei 26 (1976) 99
Boldt, E., The cosmic X-ray background 146 (1987) 215
Bondorf, J.P., M.I. Sobel and D. Sperber, Classical dynamical theory of heavy ion fusion and scattering 15 (1974) 83
Bonnet-Bidaud, J.-M. and G. Chardin, Cygnus X-3, a critical review 170 (1988) 325
Bonnor, W.B., A.K.G. de Oliveira and N.O. Santos, Radiating spherical collapse 181 (1989) 269
Bonsignori, G., *see* K. Allaart 169 (1988) 209
Booth, C.N., *see* UA5 Collaboration 154 (1987) 247
Börner, G., X-ray from neutron stars 60 (1980) 151
Borovik-Romanov, A.S. and N.M. Kreines, Brillouin–Mandelstam scattering from thermal and excited magnons 81 (1982) 351
Bortignon, P.F., R.A. Broglia, D.R. Bes and R. Liotta, Nuclear field theory 30 (1977) 305
Bortignon, P.F., *see* C. Mahaux 120 (1985) 1
Botermans, W. and R. Malfliet, Quantum transport theory of nuclear matter 198 (1990) 115
Bouchaud, J.P. and A. Georges, Anomalous diffusion in disordered media: statistical mechanisms, models and physical applications 195 (1990) 127
Bountis, T., *see* A. Ramani 180 (1989) 159
Bourquin, M. and J.-P. Repellin, Experiments with the CERN SPS hyperon beam 114 (1984) 99
Bourrely, C., E. Leader and J. Soffer, Polarization phenomena in hadronic reactions 59 (1980) 95
Bourrely, C., J. Soffer, F.M. Renard and P. Taxil, Spin effects at supercollider energies 177 (1989) 319
Boyce, J.B. and B.A. Huberman, Superionic conductors: transitions, structures, dynamics 51 (1979) 189
Bracci, L. and G. Fiorentini, Mesic molecules and muon catalysed fusion 86 (1982) 169
Brack, M., C. Guet and H.-B. Håkansson, Selfconsistent semiclassical description of average nuclear properties – A link between microscopic and macroscopic models 123 (1985) 275
Braginsky, V.B. and V.N. Rudenko, Gravitational waves and the detection of gravitational radiation 46 (1978) 165
Bransden, B.H. and M.R.C. McDowell, Electron scattering by atoms at intermediate energies I. Theoretical models 30 (1977) 207
Bransden, B.H. and M.R.C. McDowell, Electron scattering by atoms at intermediate energies II. Theoretical and experimental data for light atoms 46 (1978) 249
Branson, J.G., *see* MARK J Collaboration 63 (1980) 337
Branson, J.G., *see* MARK J Collaboration 109 (1984) 131
Braun-Munzinger, P. and J. Barrette, Dynamical aspects of large angle heavy-ion scattering 87 (1982) 209
Brevik, I., Experiments in phenomenological electrodynamics and the electromagnetic energy-momentum tensor 52 (1979) 133
Brewer, R.G., *see* A. Schenzle 43 (1978) 455
Brézin, E. and J.L. Gervais (editors), Non-perturbative aspects in quantum field theory 49 (1979) 91
Brézin, E., Planar diagrams 49 (1979) 221
Brézin, E., J.-L. Gervais and G. Toulouse (editors), Common trends in particle and condensed matter physics. Proceedings of Les Houches Winter Advanced Study Institute, February 1980 67 (1980) 1
Brink, D.M., *see* N. Anyas-Weiss 12 (1974) 201
Brockmann, R., *see* E. Oset 188 (1990) 79

Brodsky, S.J., *see* D. Sivers 23 (1976) 1
Broglia, R.A. and A. Winther, Semiclassical theory of heavy ion reactions 4 (1972) 153
Broglia, R.A., S. Landowne, R.A. Malfliet, V. Rostokin and Aa. Winther, Semiquantal approximations to heavy ion reaction 11 (1974) 1
Broglia, R.A., *see* D.R. Bes 16 (1975) 1
Broglia, R.A., *see* U. Götz 16 (1975) 115
Broglia, R.A., R. Liotta, B.S. Nilsson and A. Winther, Formfactors for one- and two-nucleon transfer reactions induced by light and heavy ions 29 (1977) 291
Broglia, R.A., *see* P.F. Bortignon 30 (1977) 305
Broglia, R.A., *see* D.R. Bes 34 (1977) 1
Broglia, R.A., C.H. Dasso, G. Pollarolo and A. Winther, Formfactors for inelastic scattering between heavy ions 48 (1978) 351
Broglia, R.A., *see* C. Mahaux 120 (1985) 1
Bron, J., *see* MARK J Collaboration 63 (1980) 337
Bronzan, J.D., *see* H.D.I. Abarbanel 21 (1975) 119
Bros, J., Derivation of asymptotic crossing domains for multiparticle processes in axiomatic quantum field theory: A general approach and a complete proof for $2\rightarrow 3$ particle processes 134 (1986) 325
Brosa, U., S. Grossmann and A. Müller, Nuclear scission 197 (1990) 167
Brout, R., Theoretical methods in the critical region of a phase transition 10 (1974) 1
Brower, R.C., C.E. DeTar and J.H. Weis, Regge theory for multiparticle amplitudes 14 (1974) 257
Brown, B.A., R. Radhi and B.H. Wildenthal, Electric quadrupole and hexadecupole nuclear excitations from the perspectives of electron scattering and modern shell-model theory 101 (1983) 313
Brown, G.E. and W. Weise, Pion scattering and isobars in nuclei 22 (1975) 279
Brown, G.E. and W. Weise, Pion condensates 27 (1976) 1
Brown, G.E., B.K. Jennings and V.I. Rostokin, The pion–nucleus many-body problem 50 (1979) 227
Brown, G.E., *see* S.-O. Bäckman 124 (1985) 1
Brown, G.E., *see* I. Zahed 142 (1986) 1
Brown, G.E. (editor), Theory of supernovae 163 (1988) 1
Brown, G.E., Foreword 163 (1988) 3
Brown, G.E., The equation of state of dense matter 163 (1988) 167
Brown, R.C. and N.H. March, Structure and excitations in liquid and solid surfaces 24 (1976) 77
Browning, P.K., Magnetohydrodynamics in solar coronal and laboratory plasmas: A comparative study 169 (1988) 329
Bryman, D.A., P. Depommier and C. Leroy, $\pi\rightarrow e\nu$, $\pi\rightarrow e\nu\gamma$ decays and related processes 88 (1982) 151
Buck, B., *see* N. Anyas-Weiss 12 (1974) 201
Budinich, P., Pure spinors and quadric Grassmanians 137 (1986) 35
Budnev, V.M., I.F. Ginzburg, G.V. Meledin and V.G. Serbo, The two-photon particle production mechanism. Physical problems. Applications. Equivalent photon approximation 15 (1975) 181
Buenerd, M., *see* C.K. Gelbke 42 (1978) 311
Buffam, C., *see* UA5 Collaboration 154 (1987) 247
Buikman, D., *see* MARK J Collaboration 63 (1980) 337
Bulanov, S.V., L.M. Kovrizhnykh and A.S. Sakharov, Regular mechanisms of electron and ion acceleration in the interaction of strong electromagnetic waves with a plasma 186 (1990) 1
Bulkin, B.J., *see* J.G. Grasselli 65 (1980) 231
Bundy, F.P., Ultra-high pressure apparatus 167 (1988) 133

Burger, J.D., *see* MARK J Collaboration 63 (1980) 337
Burger, J.D., *see* MARK J Collaboration 109 (1984) 131
Burke, P.G. and J.F. Williams, Electron scattering by atoms and molecules 34 (1977) 325
Burnett, K., Collisional redistribution of radiation 118 (1985) 339
Burow, L., *see* UA5 Collaboration 154 (1987) 247
Burrows, A. and J.M. Lattimer, Convection, type II supernovae, and the early evolution of neutron stars 163 (1988) 51
Bychenkov, V.Yu., V.P. Silin and S.A. Uryupin, Ion-acoustic turbulence and anomalous transport 164 (1988) 119
Byron Jr., F.W. and C.J. Joachain, Eikonal theory of electron– and positron–atom collisions 34 (1977) 233
Byron Jr., F.W. and C.J. Joachain, Theory of (e, 2e) reactions 179 (1989) 211

Caciuffo, R., S. Melone, F. Rustichelli and A. Boeuf, Monochromators for X-ray synchrotron radiation 152 (1987) 1
Cadeville, M.C. and J.L. Morán-López, Magnetism and spatial order in transition metal alloys: Experimental and theoretical aspects 153 (1987) 331
Caianiello, E.R. (editor), New avenues in quantum theory and general relativity. Proceedings of the Meeting, organised by The Istituto Italiano per gli Studi Filosofici at Amalfi, Italy, May 1984 137 (1986) 1
Caianiello, E.R., Topics from quantum geometry: Substructure of spinor space, geodesics and quantum oscillators 137 (1986) 21
Callan Jr., C.G., A simple picture of the weak-to-strong coupling transition in quantum chromodynamics 67 (1980) 123
Callaway, D.J.E., Triviality pursuit: can elementary scalar particles exist? 167 (1988) 241
Callaway, J., The variational method in atomic scattering 45 (1978) 89
Camilleri, L., Proton–antiproton physics at the CERN intersecting storage rings 144 (1987) 51
Camporesi, R., Harmonic analysis and propagators on homogeneous spaces 196 (1990) 1
Cantrell, C.D. and M.O. Scully, The EPR paradox revisited 43 (1978) 499
Capell, M., *see* MARK J Collaboration 109 (1984) 131
Caprihan, A. and E. Fukushima, Flow measurements by NMR 198 (1990) 195
Carlson, B.V., *see* M.S. Hussein 113 (1984) 133
Carlson, P., *see* UA5 Collaboration 154 (1987) 247
Carmeli, M., Ch. Charach and S. Malin, Survey of cosmological models with gravitational, scalar and electromagnetic waves 76 (1981) 79
Carruthers, P., Broken scale invariance in particle physics 1 (1971) 1
Cary, J.R., Lie transform perturbation theory for Hamiltonian systems 79 (1981) 129
Casati, G., B.V. Chirikov, D.L. Shepelyansky and I. Guarneri, Relevance of classical chaos in quantum mechanics: The hydrogen atom in a monochromatic field 154 (1987) 77
Cashmore, R.J., S. Chadha, M. Cribier, D. Cords, R. Devenish, B. Lohr, P. Mattig, J. Proudfoot, R. Ruckl, H. Rykaczewski, D.H. Saxon, D. Schiller, J. Wheater and C. Youngman, Exotic phenomena in high energy ep collisions 122 (1985) 275
Caspers, W.J., Renormalization techniques for quantum spin systems. Ground-state energies 63 (1980) 223
Cassing, W., V. Metag, U. Mosel and K. Niita, Production of energetic particles in heavy-ion collisions 188 (1990) 363
Castel, B. and L. Zamick, New spin excitation modes in nuclei 148 (1987) 217
Celenza, L.S., *see* M.R. Anastasio 100 (1983) 327
Cerrada, M., *see* MARK J Collaboration 109 (1984) 131

Chadha, S., *see* R.J. Cashmore 122 (1985) 275
Chakraborty, B., S.N. Paul, M. Khan and B. Bhattacharyya, Wave-precession and related nonlinear effects in plasmas 114 (1984) 181
Chakraborty, B., Variational classical electrodynamics 156 (1987) 1
Chakravarty, S. and A. Schmid, Weak localization: the quasiclassical theory of electrons in a random potential 140 (1986) 193
Chang, C.C., *see* MARK J Collaboration 63 (1980) 337
Chang, C.C., *see* MARK J Collaboration 109 (1984) 131
Chang, S.-J., Classical solution in the massive Thirring model 23 (1976) 259
Chang, S.-J., Hartree-type approximation applied to a ϕ^4 field theory 23 (1976) 301
Charach, Ch., *see* M. Carmeli 76 (1981) 79
Chardin, G., *see* J.-M. Bonnet-Bidaud 170 (1988) 325
Charman, W.N., Ball lightning 54 (1979) 261
Charpak, G., *see* A. De Rújula 99 (1983) 341
Chatterjee, A., *see* T.K. Mitra 153 (1987) 91
Chatterjee, A., Large-N expansions in quantum mechanics, atomic physics and some O(N) invariant systems 186 (1990) 249
Chau, Ling-Lie, Quark mixing in weak interactions 95 (1983) 1
Chebotarev, L.V., *see* E.A. Kaner 150 (1987) 179
Chebotayev, V.P., Supernarrow saturated absorption resonances 119 (1985) 75
Chechetkin, V.R. and A.S. Sigov, Stability of superconducting magnet systems subject to thermal disturbances 176 (1989) 1
Chen, H.S., *see* MARK J Collaboration 63 (1980) 337
Chen, H.S., *see* MARK J Collaboration 109 (1984) 131
Chen, M., *see* MARK J Collaboration 63 (1980) 337
Chen, M., *see* MARK J Collaboration 109 (1984) 131
Chen, M., C. Dionisi, M. Martinez and X. Tata, Signals from non-strongly interacting supersymmetric particles at LEP energies 159 (1988) 201
Chen, M.L., *see* MARK J Collaboration 109 (1984) 131
Chen, M.Y., *see* MARK J Collaboration 109 (1984) 131
Cheng, C.P., *see* MARK J Collaboration 63 (1980) 337
Cheng, Hai-Yang, The strong *CP* problem revisited 158 (1988) 1
Chernyak, V.L. and A.R. Zhitnitsky, Asymptotic behaviour of exclusive processes in QCD 112 (1984) 173
Chevalley, J.-L., *see* UA5 Collaboration 154 (1987) 247
Chew, G.F. and C. Rosenzweig, Dual topological unitarization: an ordered approach to hadron theory 41 (1978) 263
Chezeau, J.M. and J.H. Strange, Diffusion in molecular crystals 53 (1979) 1
Chibisov, M.I. and R.K. Janev, Asymptotic exchange interactions in ion–atom systems 166 (1988) 1
Chidambaram, R., *see* B.K. Godwal 102 (1983) 121
Ching Cheng-rui and Ho Tso-hsiu, On the determination of neutrino mass – A critical status report 112 (1984) 1
Chirikov, B.V., A universal instability of many-dimensional oscillator systems 52 (1979) 263
Chirikov, B.V., *see* G. Casati 154 (1987) 77
Choi, D.-I., *see* W. Horton Jr. 49 (1979) 273
Chou, K.C., Z.B. Su, B.L. Hao and L. Yu, Equilibrium and nonequilibrium formalisms made unified 118 (1985) 1
Chounet, L.-M., J.-M. Gaillard and M.K. Gaillard, Leptonic decays of hadrons 4 (1972) 199
Chowdhury, D. and A. Mookerjee, Mean-field theories of spin glasses 114 (1984) 1

Chrien, R., A. Hofmann and A. Molinari, Nuclear physics with synchrotron radiation 64 (1980) 249
Christ, N.H., Quantum expansion of soliton solutions 23 (1976) 294
Christillin, P., Nuclear photoreactions at intermediate energies 190 (1990) 63
Christos, G.A., Chiral symmetry and the U(1) problem 116 (1984) 251
Chu, Y.S., *see* MARK J Collaboration 63 (1980) 337
Chu, Y.S., *see* MARK J Collaboration 109 (1984) 131
Chutjian, A., *see* S. Trajmar 97 (1983) 219
Ciafaloni, M., *see* A. Bassetto 100 (1983) 201
Ciocci, F., G. Dattoli, A. Renieri and A. Torre, About the mathematical aspects of the FEL and their relationship to quantum optics 141 (1986) 1
Ciulli, S., C. Pomponiu and I. Sabba-Stefănescu, Analytic extrapolation techniques and stability problems in dispersion relation theory 17 (1975) 133
Clare, R., *see* MARK J Collaboration 63 (1980) 337
Clare, R., *see* MARK J Collaboration 109 (1984) 131
Clare, R.B. and D. Strottman, Relativistic hydrodynamics and heavy ion reactions 141 (1986) 177
Clark, J.W., J. Rafelski and J.V. Winston, Brain without mind: Computer simulation of neural networks with modifiable neuronal interactions 123 (1985) 215
Clark, J.W., Statistical mechanics of neural networks 158 (1988) 91
Clayton, D.D. and M.D. Leising, ^{26}Al in the interstellar medium 144 (1987) 1
Clem, J.R., Flux-flow noise in superconductors 75 (1981) 1
Cleymans, J., R.V. Gavai and E. Suhonen, Quarks and gluons at high temperatures and densities 130 (1986) 217
Cochrane, R.W., R. Harris and M.J. Zuckermann, The role of structure in the magnetic properties of amorphous alloys 48 (1978) 1
Cohen, E.G.D., *see* J.M. Kincaid 22 (1975) 57
Cohen, M., The T Tauri stars 116 (1984) 173
Cohen, M.L., Electronic structure of solids 110 (1984) 293
Collet, P., Transition to turbulence in systems with few degrees of freedom 103 (1984) 121
Collins, C.B. and G.F.R. Ellis, Singularities in Bianchi cosmologies 56 (1979) 65
Collins, P.D.B., Regge theory and particle physics 1 (1971) 103
Combe, Ph., R. Rodriguez, R. Høegh-Krohn, M. Sirugue and M. Sirugue-Collin, Generalized Poisson processes in quantum mechanics and field theory 77 (1981) 221
Combley, F. and E. Picasso, The muon $(g-2)$ precession experiments: past, present and future 14 (1974) 1
Combley, F., F.J.M. Farley and E. Picasso, The CERN muon $(g-2)$ experiments 68 (1981) 93
Cooperstein, J., Neutrinos in supernovae 163 (1988) 95
Cords, D., *see* R.J. Cashmore 122 (1985) 275
Cornell, J.C., *see* N. Anyas-Weiss 12 (1974) 201
Corrigan, E., Self-dual solutions to Euclidean Yang–Mills equations 49 (1979) 95
Coullet, P.H., Chaotic behaviours in the unfolding of singular vector fields 103 (1984) 95
Courths, R. and S. Hüfner, Photoemission experiments on copper 112 (1984) 53
Craigie, N.S., Lepton and photon production in hadron collisions 47 (1978) 1
Craigie, N.S., K. Hidaka, M. Jacob and F.M. Renard, Spin physics at short distances 99 (1983) 69
Crance, M., Multiphoton stripping of atoms 144 (1987) 117
Cresser, J.D., Theory of the spectrum of the quantised light field 94 (1983) 47
Creutz, M., L. Jacobs and C. Rebbi, Monte Carlo computations in lattice gauge theories 95 (1983) 201
Cribier, M., *see* R.J. Cashmore 122 (1985) 275
Criegee, L. and G. Knies, e^+e^- physics with the PLUTO detector 83 (1982) 151

Crowley, B.J.B., A semiclassical theory of elastic scattering and direct-reactions: Time-independent formulation in three spatial dimensions with complex trajectories 57 (1980) 47
Crutchfield, J.P., J.D. Farmer and B.A. Huberman, Fluctuations and simple chaotic dynamics 92 (1982) 45
Csernai, L.P. and J.I. Kapusta, Entropy and cluster production in nuclear collisions 131 (1986) 223
Cue, N., *see* J.C. Kimball 125 (1985) 69
Cummins, H.Z., Experimental studies of structurally incommensurate crystal phases 185 (1990) 211
Curran, D.R., L. Seaman and D.A. Shockey, Dynamic failure of solids 147 (1987) 253
Czycholl, G., Approximate treatments of intermediate valence and heavy fermion model systems 143 (1986) 277

D'Adda, A., M. Lüscher and P. Di Vecchia, Topology and higher symmetries of the two-dimensional non-linear σ-model 49 (1979) 239
Dadhich, N., *see* S.M. Wagh 183 (1989) 137
Daehnick, W.W., The residual interaction of bound nucleons – two-nucleon matrix elements deduced from transfer experiments 96 (1983) 317
Dalton, B.J., *see* P.L. Knight 190 (1990) 1
Damgaard, P.H. and H. Hüffel, Stochastic quantization 152 (1987) 227
Das Gupta, S. and A.Z. Mekjian, The thermodynamic model for relativistic heavy ion collisions 72 (1981) 131
Das Gupta, S., *see* G.F. Bertsch 160 (1988) 189
Dash, J.G., Helium films from two to three dimensions 38 (1978) 177
Dasso, C.H., *see* R.A. Broglia 48 (1978) 351
Dasso, C.H., *see* C. Mahaux 120 (1985) 1
Dattoli, G., *see* F. Ciocci 141 (1986) 1
David, D., D.D. Holm and M.V. Tratnik, Hamiltonian chaos in nonlinear optical polarization dynamics 187 (1990) 281
David, F., Random surfaces and the statistics of membranes 184 (1989) 221
Davies, G., The optical properties of luminescence centres in silicon 176 (1989) 83
Davison, L. and R.A. Graham, Shock compression of solids 55 (1979) 255
Davydov, A.S., Theoretical investigation of high-temperature superconductivity 190 (1990) 191
De, J.N., *see* J.R. Birkelund 56 (1979) 107
De Alfaro, V., S. Fubini, G. Furlan and G. Veneziano, Nicolai mapping and stochastic identities in supersymmetric field theories 137 (1986) 55
De Boer, E., Auditory physics. Physical principles in hearing theory. I 62 (1980) 87
De Boer, E., Auditory physics. Physical principles in hearing theory. II 105 (1984) 141
De Dominicis, C., Towards a mean field theory of spin glasses: The TAP route revisited 67 (1980) 37
De Hemptinne, X., Thermodynamics of laser systems 122 (1985) 1
De Jagher, P.C., F.W. Sluijter and H.J. Hopman, Relativistic electron beams and beam–plasma interaction 167 (1988) 177
De Jeu, W.H., *see* E.F. Gramsbergen 135 (1986) 195
De Kluiver, H., N.F. Perepelkin and A. Hirose, Experimental results on current-driven turbulence in plasmas – a survey 199 (1991) 281
De Miniac, A., *see* L.C. Maximon 147 (1987) 189
De Oliveira, A.K.G., *see* W.B. Bonnor 181 (1989) 269
De Pater, I., The significance of microwave observations for the planets 200 (1991) 1
De Raedt, H. and A. Lagendijk, Monte Carlo simulation of quantum statistical lattice models 127 (1985) 233

De Rafael, E., *see* B.E. Lautrup 3 (1972) 193
De Rújula, A., S.L. Glashow, R.R. Wilson and G. Charpak, Neutrino exploration of the Earth 99 (1983) 341
De Vega, H.J., The quantum inverse method and the non-local charges in sigma models 103 (1984) 243
De Young, D.S., The physics of extragalactic radio sources 111 (1984) 373
Deacon, D.A.G., Basic theory of the isochronous storage ring laser 76 (1981) 349
Deb, B.M., *see* S.K. Ghosh 92 (1982) 1
Declercq, C., *see* UA5 Collaboration 154 (1987) 247
Decoster, A., Nonlinear travelling waves in a homogeneous cold collisionless plasma 47 (1978) 285
Deffur, E., *see* MARK J Collaboration 109 (1984) 131
Deguchi, T., *see* M. Wadati 180 (1989) 247
Dejonghe, H., Stellar dynamics and the description of stellar systems 133 (1986) 217
Dekhtyar, I.Ya., The use of positrons for the study of solids 9 (1974) 243
Dekker, E., Spiral structure and the dynamics of galaxies 24 (1976) 315
Dekker, H., Classical and quantum mechanics of the damped harmonic oscillator 80 (1981) 1
Demarteau, M., *see* MARK J Collaboration 109 (1984) 131
Demtröder, W., High resolution spectroscopy with lasers 7 (1973) 223
Denisov, V.N., B.N. Mavrin and V.B. Podobedov, Hyper-Raman scattering by vibrational excitations in crystals, glasses and liquids 151 (1987) 1
Depommier, P., *see* D.A. Bryman 88 (1982) 151
Derrida, B., The random energy model 67 (1980) 29
Derrida, B., Can disorder induce several phase transitions 103 (1984) 29
Derrida, B., Dynamical phase transitions and spin glasses 184 (1989) 207
D'Espagnat, B., Nonseparability and the tentative descriptions of reality 110 (1984) 201
DeTar, C.E., *see* R.C. Brower 14 (1974) 257
Deutsch, C., Y. Furutani and M.M. Gombert, Nodal expansions for strongly coupled classical plasmas 69 (1981) 85
Devenish, R., *see* R.J. Cashmore 122 (1985) 275
DeWitt, B.S., Quantum field theory in curved spacetime 19 (1975) 295
DeWitt-Morette, C., A. Maheshwari and B. Nelson, Path integration in non-relativistic quantum mechanics 50 (1979) 255
DeWitt-Morette, C. and K.D. Elworthy (editors), New stochastic methods in physics 77 (1981) 121
DeWitt-Morette, C. and K.D. Elworthy, A stepping stone to stochastic analysis 77 (1981) 125
DeWolf, R.S., *see* UA5 Collaboration 154 (1987) 247
Di Vecchia, P., *see* A. D'Adda 49 (1979) 239
Diekmann, B., Spectroscopy of mesons containing light quarks (u, d, s) or gluons 159 (1988) 99
Diemoz, M., F. Ferroni and E. Longo, Nucleon structure functions from neutrino scattering 130 (1986) 293
Dionisi, C., *see* M. Chen 159 (1988) 201
Dokshitzer, Yu.L., D.I. Dyakonov and S.I. Troyan, Hard processes in quantum chromodynamics 58 (1980) 269
Dolan, L., Kac–Moody algebras and exact solvability in hadronic physics 109 (1984) 1
Dolginov, A.Z., Magnetic field generation in celestial bodies 162 (1988) 337
Donnelly, T.W. and R.D. Peccei, Neutral current effects in nuclei 50 (1979) 1
Donoghue, J.F., E. Golowich and B. Holstein, Low-energy weak interactions of quarks 131 (1986) 319
Donsker, M.D. and S.R.S. Varadhan, The polaron problem and large deviations 77 (1981) 235
Douglass, D.C., *see* V.J. McBrierty 63 (1980) 61
Dover, C.B. and G.E. Walker, The interaction of kaons with nucleons and nuclei 89 (1982) 1

Dover, C.B., D.J. Millener and A. Gal, On the production and spectroscopy of Σ hypernuclei 184 (1989) 1
Drabkin, G.M., *see* M.M. Agamalyan 168 (1988) 265
Drawin, H.W., Plasma impurities and cooling 37 (1978) 125
Dremin, I.M. and A.M. Dunaevskii, The multiperipheral cluster theory and its comparison with experiment 18 (1975) 159
Drijard, D., *see* W.M. Geist 197 (1990) 263
Drouffe, J.-M., Large dimension expansions and transition patterns in lattice gauge theories 67 (1980) 63
Drouffe, J.-M. and J.-B. Zuber, Strong coupling and mean field methods in lattice gauge theories 102 (1983) 1
Drouffe, J.M. and C. Itzykson, Lattice gauge fields 38 (1978) 133
Drożdż, S., S. Nishizaki, J. Speth and J. Wambach, The nuclear response within extended RPA theories 197 (1990) 1
Dubnička, S. and O. Dumbrajs, Analyticity in hadron–nuclei binary reactions 19 (1975) 141
Dubovik, V.M. and V.V. Tugushev, Toroid moments in electrodynamics and solid-state physics 187 (1990) 145
Dubrovskii, G.V., *see* A.V. Bogdanov 181 (1989) 121
Duff, M.J., B.E.W. Nilsson and C.N. Pope, Kaluza–Klein supergravity 130 (1986) 1
Duinker, P., *see* MARK J Collaboration 63 (1980) 337
Duinker, P., *see* MARK J Collaboration 109 (1984) 131
Duke, D.W. and R.G. Roberts, Determinations of the QCD strong coupling α_s and the scale $\Lambda_{\overline{\rm QCD}}$ 120 (1985) 275
Dumbrajs, O., *see* S. Dubnička 19 (1975) 141
Dunaevskii, A.M., *see* I.M. Dremin 18 (1975) 159
Duplantier, B., Two-dimensional fractal geometry, critical phenomena and conformal invariance 184 (1989) 229
Duru, I.H., *see* A.O. Barut 172 (1989) 1
Dyakonov, D.I., *see* Yu.L. Dokshitzer 58 (1980) 269
Dynkin, E.B., Markov processes, random fields and Dirichlet spaces 77 (1981) 239

Eaton, N., Recent developments in asteroid science 132 (1986) 261
Eberly, J.H., *see* H.-I. Yoo 118 (1985) 239
Ebner, C. and D.O. Edwards, The low temperature thermodynamic properties of superfluid solutions of ^{3}He in ^{4}He 2 (1971) 77
Eckart, B., *see* UA5 Collaboration 154 (1987) 247
Eckert, H., *see* W. Müller-Warmuth 88 (1982) 91
Eckhardt, B., Quantum mechanics of classically non-integrable systems 163 (1988) 205
Edmonds, D.T., Nuclear quadrupole double resonance 29 (1977) 233
Edwards, D.O., *see* C. Ebner 2 (1971) 77
Egri, I., Excitons and plasmons in metals, semiconductors and insulators: A unified approach 119 (1985) 363
Eguchi, T., P.B. Gilkey and A.J. Hanson, Gravitation, gauge theories and differential geometry 66 (1980) 213
Eichler, D., *see* R. Blandford 154 (1987) 1
Eichler, J., Theory of relativistic ion–atom collisions 193 (1990) 165
Eilam, G., *see* S. Fredriksson 144 (1987) 187
Ejiri, H. and J.I. Fujita, Effective coupling constants for beta and gamma transitions in medium and heavy nuclei 38 (1978) 85

Ekspong, G., *see* UA5 Collaboration 154 (1987) 247
Eliezer, S. and H. Hora, Double layers in laser-produced plasmas 172 (1989) 339
Ellis, G.F.R., *see* C.B. Collins 56 (1979) 65
Ellis, G.F.R., S.D. Nel, R. Maartens, W.R. Stoeger and A.P. Whitman, Ideal observational cosmology 124 (1985) 315
Ellis, J., Concluding theoretical remarks 105 (1984) 121
Ellis, N. and A. Kernan, Heavy quark production at the CERN $p\bar{p}$ collider 195 (1990) 23
Ellis, P.J., *see* N. Anyas-Weiss 12 (1974) 201
Elsässer, K., Low amplitude turbulence 8 (1973) 1
Elsässer, K., Toroidal hydromagnetics 112 (1984) 377
Elster, Ch., *see* R. Machleidt 149 (1987) 1
Elworthy, K.D., *see* C. DeWitt-Morette 77 (1981) 121
Elworthy, K.D., *see* C. DeWitt-Morette 77 (1981) 125
Elyutin, S.O., *see* A.I. Maimistov 191 (1990) 1
Elze, H.-T. and U. Heinz, Quark–gluon transport theory 183 (1989) 81
Emel'yanov, V.M., Yu.P. Nikitin, I.L. Rozental and A.V. Berkov, Physics in multidimensional spaces and the beginning of Metagalaxy 143 (1986) 1
Engeland, T., *see* N. Anyas-Weiss 12 (1974) 201
Englert, F. and P. Windey, Dynamical and topological considerations on quark confinement 49 (1979) 173
Englman, R., *see* A. Ranfagni 108 (1984) 165
Epstein, H. and D. Ruelle, Test of a probabilistic model of evolutionary success 184 (1989) 289
Epstein, R.I., Gamma-ray bursts and glitching neutron stars 163 (1988) 155
Eramzhyan, R.A., B.S. Ishkanov, I.M. Kapitonov and V.G. Neudatchin, The giant dipole resonance in light nuclei and related phenomena 136 (1986) 229
Eremenko, V.V., Yu.G. Litvinenko and E.V. Matyushkin, Optical magnetic excitations 132 (1986) 55
Eremenko, V.V. and N.F. Kharchenko, Magneto-optics of antiferromagnets 155 (1987) 379
Eremenko, V.V. and L.A. Ogurtsova, Stimulated emission and relaxation processes in molecular crystals 166 (1988) 353
Ericson, M. and M. Rho, From soft to real pions in nuclear physics 5 (1972) 57
Erkelenz, K., Current status of the relativistic two-nucleon one boson exchange potential 13 (1974) 191
Ernst, M.H., Nonlinear model-Boltzmann equations and exact solutions 78 (1981) 1
Erukhimov, L.M., *see* L.G. Genkin 186 (1990) 97
Escande, D.F., Stochasticity in classical Hamiltonian systems: Universal aspects 121 (1985) 165
Evangelou, I., *see* UA5 Collaboration 154 (1987) 247
Eyring, A., *see* UA5 Collaboration 154 (1987) 247

Fabre, J.-P., *see* UA5 Collaboration 154 (1987) 247
Fabrikant, I.I., O.B. Shpenik, A.V. Snegursky and A.N. Zavilopulo, Electron impact formation of metastable atoms 159 (1988) 1
Faddeev, L.D. and V.E. Korepin, Quantum theory of solitons 42 (1978) 1
Fadin, V.S., *see* V.N. Baier 78 (1981) 293
Faessler, M.A., Review on $\alpha\alpha$ and αp interactions in the CERN-ISR 88 (1982) 401
Faessler, M.A., Experiments with alpha particles at the CERN intersecting storage rings 115 (1984) 1
Falter, C., A unifying approach to lattice dynamical and electronic properties of solids 164 (1988) 1
Fang, G.Y., *see* MARK J Collaboration 63 (1980) 337
Farhi, E. and L. Susskind, Technicolour 74 (1981) 277
Farley, F.J.M., *see* F. Combley 68 (1981) 93

Farmer, J.D., *see* J.P. Crutchfield 92 (1982) 45
Fawcett, N.S.J., *see* G. Barton 170 (1988) 1
Fayet, P. and S. Ferrara, Supersymmetry 32 (1977) 249
Fayet, P., Supersymmetric theories of particles and interactions 105 (1984) 21
Fedyanin, V.K., *see* V.G. Makhankov 104 (1984) 1
Feinberg, E.L., Multiple production of hadrons at cosmic ray energies (experimental results and theoretical concepts) 5 (1972) 237
Feinberg, G., J. Sucher and C.-K. Au, The dispersion theory of dispersion forces 180 (1989) 83
Feldman, G.J. and M.L. Perl, Electron–positron annihilation above 2 GeV and the new particles 19 (1975) 233
Feldman, G.J. and M.L. Perl, Recent results in electron–positron annihilation above 2 GeV 33 (1977) 285
Fernández de Córdoba, P., *see* E. Oset 188 (1990) 79
Ferrara, S., *sec* P. Fayet 32 (1977) 249
Ferrara, S., Supersymmetry and fundamental particle interactions 105 (1984) 5
Ferrario, C., *see* G. Morandi 188 (1990) 147
Ferroni, F., *see* M. Diemoz 130 (1986) 293
Fesefeldt, H., *see* MARK J Collaboration 63 (1980) 337
Fesefeldt, H.S., *see* MARK J Collaboration 109 (1984) 131
Fichtel, C.E., *see* J.I. Trombka 97 (1983) 173
Fiorentini, G., *see* L. Bracci 86 (1982) 169
Firsov, Yu.A., V.N. Prigodin and Chr. Seidel, Ground states and critical temperatures in quasi-one-dimensional systems 126 (1985) 245
Fischbach, E. and D. Tadić, Parity-violating nuclear interactions and models of the weak Hamiltonian 6 (1973) 123
Fischer, J., General laws of hadron scattering at very high energies 76 (1981) 157
Fischer, K.H., Dilute magnetic alloys with transition metals as host 47 (1978) 225
Fischer, M., *see* UA5 Collaboration 154 (1987) 247
Fisher, P.S., *see* N. Anyas-Weiss 12 (1974) 201
Flower, D.R., Molecular collision processes in interstellar clouds 174 (1989) 1
Foà, L., Inclusive study of high-energy multiparticle production and two-body correlations 22 (1975) 1
Foà, L., *see* G. Bellini 83 (1982) 1
Fomin, V.M. and E.P. Pokatilov, Non-equilibrium properties of charge carriers with arbitrary coupling to the lattice in semiconductors 158 (1988) 205
Fonda, L., N. Mankoč-Borštnik and M. Rosina, Coherent rotational states, their formation and detection 158 (1988) 159
Fong, D., *see* MARK J Collaboration 63 (1980) 337
Fong, D., *see* MARK J Collaboration 109 (1984) 131
Ford, G.W., Rotational Brownian motion of an asymmetric top 77 (1981) 249
Ford, G.W. and W.H. Weber, Electromagnetic interactions of molecules with metal surfaces 113 (1984) 195
Fortson, E.N. and L.L. Lewis, Atomic parity nonconservation experiments 113 (1984) 289
Fox, R.F., Gaussian stochastic processes in physics 48 (1978) 179
Fradkin, E.S. and M.Ya. Palchik, Recent developments in conformal invariant quantum field theory 44 (1978) 249
Fradkin, E.S. and A.A. Tseytlin, Conformal supergravity 119 (1985) 233
Frahn, W.E. and K.E. Rehm, Elastic and inelastic heavy ion scattering 37 (1978) 1
Frampton, P.H. and P. Vogel, Massive neutrinos 82 (1982) 339

Francis, W.R. and T.B.W. Kirk, Muon scattering at Fermilab 54 (1979) 307
Frankel, N.E., *see* V. Kowalenko 126 (1985) 109
Frankfurt, L. and M. Strikman, Hard nuclear processes and microscopic nuclear structure 160 (1988) 235
Frankfurt, L.L. and M.I. Strikman, High-energy phenomena, short-range nuclear structure and QCD 76 (1981) 215
Franzini, P. and J. Lee-Franzini, Upsilon physics at CESR 81 (1982) 239
Franzini, P.J., $B\bar{B}$ mixing: a review of recent progress 173 (1989) 1
Fredriksson, S., G. Eilam, G. Berlad and L. Bergström, High-energy collisions with atomic nuclei: The experimental results 144 (1987) 187
Freiesleben, H. and J.V. Kratz, N/Z-equilibration and nucleon exchange in dissipative heavy-ion collisions 106 (1984) 1
Freifelder, R., M. Prakash and J.M. Alexander, Interplay between theory and experiment for fission-fragment angular distributions from nuclei near the limits of stability 133 (1986) 315
French, K.A., *see* UA5 Collaboration 154 (1987) 247
Friedberg, R., S.R. Hartmann and J.T. Manassah, Frequency shifts in emission and absorption by resonant systems of two-level atoms 7 (1973) 101
Friedman, W.A., M.S. Hussein, K.W. McVoy and P.A. Mello, Preequilibrium reactions: Statistical fluctuations and doorways 77 (1981) 47
Friedrich, H., Microscopic nucleus–nucleus potentials 74 (1981) 209
Friedrich, H. and D. Wintgen, The hydrogen atom in a uniform magnetic field – an example of chaos 183 (1989) 37
Frigerio, A., Quantum stochastic processes II 77 (1981) 351
Frishman, Y., Light cone and short distances 13 (1974) 1
Fritzsch, H. and P. Minkowski, Flavordynamics of quarks and leptons 73 (1981) 67
Fröbrich, P., Fusion and capture of heavy ions above the barrier: Analysis of experimental data with the surface friction model 116 (1984) 337
Fröhlich, J., Some comments on the crossover between strong and weak coupling in SU(2) pure Yang–Mills theory 67 (1980) 137
Fröhlich, J. and Th. Spencer, A rigorous approach to Anderson localization 103 (1984) 9
Fubini, S., *see* V. de Alfaro 137 (1986) 55
Fuglesang, C., *see* UA5 Collaboration 154 (1987) 247
Fujimoto, Y., *see* C.M.G. Lattes 65 (1980) 151
Fujita, J.I., *see* H. Ejiri 38 (1978) 85
Fukugita, M. and K. Igi, Phenomenological duality 31 (1977) 237
Fukushima, E., *see* A. Caprihan 198 (1990) 195
Fukushima, M., *see* MARK J Collaboration 63 (1980) 337
Fukushima, M., On a stochastic calculus related to Dirichlet forms and distorted Brownian motions 77 (1981) 255
Fukushima, M., *see* MARK J Collaboration 109 (1984) 131
Fulcher, L.P., *see* J. Rafelski 38 (1978) 227
Fuller, E.G., Photonuclear reaction cross sections for ^{12}C, ^{14}N and ^{16}O 127 (1985) 185
Fulling, S.A. and S.N.M. Ruijsenaars, Temperature, periodicity and horizons 152 (1987) 135
Furlan, G., *see* V. de Alfaro 137 (1986) 55
Furutani, Y., *see* C. Deutsch 69 (1981) 85
Fushchich, W.I. and R.Z. Zhdanov, Symmetry and exact solutions of nonlinear spinor equations 172 (1989) 123

Gaeta, G., Bifurcation and symmetry breaking 189 (1990) 1
Gaillard, J.-M., *see* L.-M. Chounet 4 (1972) 199
Gaillard, M.K., *see* L.-M. Chounet 4 (1972) 199
Gal, A., *see* C.B. Dover 184 (1989) 1
Galès, S., Ch. Stoyanov and A.I. Vdovin, Damping of high-lying single-particle modes in heavy nuclei 166 (1988) 125
Gallagher, B.L., *see* M.A. Howson 170 (1988) 265
Gallagher, J., *see* N. Andersen 165 (1988) 1
Gallavotti, G., The integrability problem and the Hamilton–Jacobi equation: A review 103 (1984) 177
Gambhir, Y.K., *see* K. Allaart 169 (1988) 209
Ganguli, S.N. and D.P. Roy, Regge phenomenology of inclusive reactions 67 (1980) 201
Ganz, E., *see* L.C. Maximon 147 (1987) 189
Garbaczewski, P., The method of Boson expansions in quantum theory 36 (1978) 65
García-Moliner, F. and V.R. Velasco, Matching methods for single and multiple interfaces: discrete and continuous media 200 (1991) 83
Gareev, F.G., *see* J.M. Bang 125 (1985) 253
Gari, M., Parity nonconservation in nuclei 6 (1973) 317
Gari, M. and H. Hebach, Photonuclear reactions at intermediate energies (40 MeV ≤ $E_\gamma \leq 400$ MeV) 72 (1981) 1
Garrett, A.J.M., The theory of thermal relaxation of light dilute particles in a heat bath: Integral and differential elastic collision operators 134 (1986) 195
Gasser, J. and H. Leutwyler, Quark masses 87 (1982) 77
Gaudaen, J., *see* UA5 Collaboration 154 (1987) 247
Gaupp, A., *see* I. Martinson 15 (1974) 113
Gavai, R.V., *see* J. Cleymans 130 (1986) 217
Gayet, R., *see* Dž. Belkić 56 (1979) 279
Geerlings, J.J.C., *see* J. Los 190 (1990) 133
Geich-Gimbel, C., *see* UA5 Collaboration 154 (1987) 247
Geist, W.M., D. Drijard, A. Putzer, R. Sosnowski and D. Wegener, Hadronic production of particles at large transverse momentum: its relevance to hadron structure, parton fragmentation and scattering 197 (1990) 263
Gelbke, C.K., C. Olmer, M. Buenerd, D.L. Hendrie, J. Mahoney, M.C. Mermaz and D.K. Scott, Energy dependence of peripheral reactions induced by heavy ions 42 (1978) 311
Genkin, L.G. and L.M. Erukhimov, Interplanetary plasma irregularities and ion acoustic turbulence 186 (1990) 97
Georges, A., *see* J.P. Bouchaud 195 (1990) 127
Gervais, J.-L., *see* E. Brézin 67 (1980) 1
Gervais, J.-L. and A. Neveu, String dynamics in Q.C.D. 67 (1980) 151
Gervais, J.L. and A. Neveu (organizers), Extended systems in field theory. Proceedings of the meeting held at Ecole Normale Supérieure, Paris, June 16–21, 1975 23 (1976) 237
Gervais, J.L. and A. Neveu, Introduction 23 (1976) 240
Gervais, J.L., A. Jevicki and B. Sakita, Collective coordinate method for quantization of extended systems 23 (1976) 281
Gervais, J.L., *see* E. Brézin 49 (1979) 91
Gervais, J.L., Collective coordinates with non-trivial dynamics 49 (1979) 131
Gervais, J.L., General approach to two-dimensional critical systems 184 (1989) 121
Ghosh, A.S., N.C. Sil and P. Mandal, Positron–atom and positron–molecule collisions 87 (1982) 313
Ghosh, S.K. and B.M. Deb, Densities, density-functionals and electron fluids 92 (1982) 1

Giacomelli, G., A.F. Greene and J.R. Sanford, A survey of the Fermilab research program 19 (1975) 169
Giacomelli, G., Total cross sections and elastic scattering at high energies 23 (1976) 123
Giacomelli, G. and M. Jacob, Physics at the CERN-ISR 55 (1979) 1
Gianturco, F.A. and A. Jain, The theory of eletron scattering from polyatomic molecules 143 (1986) 347
Giazotto, A., Interferometric detection of gravitational waves 182 (1989) 365
Giddings, S.B., Conformal techniques in string theory and string field theory 170 (1988) 167
Gien, T.T., The modified Glauber approximation 160 (1988) 123
Gijsen, M., *see* UA5 Collaboration 154 (1987) 247
Gilkey, P.B., *see* T. Eguchi 66 (1980) 213
Gilman, F.J., Photoproduction and electroproduction 4 (1972) 95
Ginzburg, I.F., *see* V.M. Budnev 15 (1975) 181
Ginzburg, V.L. and D.A. Kirzhnits, On the problem of high temperature superconductivity 4 (1972) 343
Ginzburg, V.L. and V.N. Tsytovich, Several problems of the theory of transition radiation and transition scattering 49 (1979) 1
Ginzburg, V.L., A.P. Levanyuk and A.A. Sobyanin, Light scattering near phase transition points in solids 57 (1980) 151
Giorgi, M.A., *see* G. Bellini 83 (1982) 1
Gislason, E.A., *see* A.W. Kleyn 90 (1982) 1
Gladkov, S.O., Relaxation phenomena in magnets at ultra low temperatures 132 (1986) 277
Gladkov, S.O., Relaxation phenomena in magnets at ultra low temperatures. II 139 (1986) 159
Gladkov, S.O., On some kinetic phenomena in ordered and disordered substances 152 (1987) 73
Gladkov, S.O., The kinetics of nuclear magnetically ordered systems 182 (1989) 211
Glashow, S.L., *see* A. De Rújula 99 (1983) 341
Godart, C., *see* A. Mauger 141 (1986) 51
Goddard, A.J.H., *see* J.L. Head 53 (1979) 249
Godwal, B.K., S.K. Sikka and R. Chidambaram, Equation of state theories of condensed matter up to about 10 TPa 102 (1983) 121
Goggi, G., *see* G. Alberi 74 (1981) 1
Gogolin, A.A., Electron localization and hopping conductivity in one-dimensional disordered systems 86 (1982) 1
Gogolin, A.A., Polaron transport in quasi-1d organic conductors and in some narrow band systems 157 (1988) 347
Gogolin, A.A., Electron localization in quasi-one-dimensional organic conductors 166 (1988) 269
Goldman, M., Nuclear dipolar magnetic ordering 32 (1977) 1
Golowich, E., *see* J.F. Donoghue 131 (1986) 319
Gombert, M.M., *see* C. Deutsch 69 (1981) 85
Gonchar, N.S., Correlation functions of some continuous model systems and description of phase transitions 172 (1989) 175
Gopal, E.S.R., *see* A. Kumar 98 (1983) 57
Gorbachev, Yu.E., *see* A.V. Bogdanov 181 (1989) 121
Götz, U., M. Ichimura, R.A. Broglia and A. Winther, Reaction mechanism of two-nucleon transfer between heavy ions 16 (1975) 115
Goulianos, K., Diffractive interactions of hadrons at high energies 101 (1983) 169
Gourdin, M., Weak and electromagnetic form factors of hadrons 11 (1974) 29
Grabert, H., P. Schramm and G.-L. Ingold, Quantum Brownian motion: the functional integral approach 168 (1988) 115

Gradov, O.M. and L. Stenflo, Linear theory of a cold bounded plasma 94 (1983) 111
Graham, R., Quantum noise and strange attractors 103 (1984) 143
Graham, R.A., *see* L. Davison 55 (1979) 255
Grammaticos, B., *see* A. Ramani 180 (1989) 159
Gramsbergen, E.F., L. Longa and W.H. de Jeu, Landau theory of the nematic–isotropic phase transition 135 (1986) 195
Grandy Jr., W.T., Principle of maximum entropy and irreversible processes 62 (1980) 175
Grant, P.J., *see* J.L. Head 53 (1979) 249
Grasselli, J.G., M.K. Snavely and B.J. Bulkin, Applications of Raman spectroscopy 65 (1980) 231
Greebe, C.A.A.J., P.A. van Dalen, T.J.B. Swanenburg and J. Wolter, Electric coupling properties of acoustic and electric surface waves 1 (1971) 235
Greenberg, O.W. and C.A. Nelson, Color models of hadrons 32 (1977) 69
Greene, A.F., *see* G. Giacomelli 19 (1975) 169
Greenland, P.T., Electron capture by highly stripped ions 81 (1982) 131
Greiner, W., *see* P. Schlüter 75 (1981) 327
Greiner, W., *see* M. Soffel 85 (1982) 51
Greiner, W., *see* G. Plunien 134 (1986) 87
Greiner, W., *see* H. Stöcker 137 (1986) 277
Gribov, L.V., E.M. Levin and M.G. Ryskin, Semihard processes in QCD 100 (1983) 1
Griffith, T.C. and G.R. Heyland, Experimental aspects of the study of the interaction of low-energy positrons with gases 39 (1978) 169
Groenewold, H.J., Skeptical quantum theory 11 (1974) 327
Groenewold, H.J., Pruned quantum theory 98 (1983) 343
Groenewold, H.J., Quantal bookkeeping of samples and locality 98 (1983) 367
Groenewold, H.J., The elusive quantal individual 127 (1985) 379
Groenewold, H.J., What price locality? 155 (1987) 231
Groenewold, H.J., Bilocality 155 (1987) 251
Gromes, D., *see* W. Lucha 200 (1991) 127
Groom, D.E., In search of the supermassive magnetic monopole 140 (1986) 323
Gross, D.H.E. and H. Kalinowski, Friction model of heavy-ion collisions 45 (1978) 175
Gross, D.J., A theory of the strong interactions 49 (1979) 143
Gross, M. and S. Haroche, Superradiance: An essay on the theory of collective spontaneous emission 93 (1982) 301
Grosse, H. and A. Martin, Exact results on potential models for quarkonium systems 60 (1980) 341
Grosse, H., New solitons connected to the Dirac equation 134 (1986) 297
Grossmann, S., *see* U. Brosa 197 (1990) 167
Grun, J.B., *see* B. Hönerlage 124 (1985) 161
Grüner, G. and A. Zettl, Charge density wave conduction: A novel collective transport phenomenon in solids 119 (1985) 117
Gu Chaohao, On classical Yang–Mills fields 80 (1981) 251
Guarneri, I., *see* G. Casati 154 (1987) 77
Guerra, F., Structural aspects of stochastic mechanics and stochastic field theory 77 (1981) 263
Guet, C., *see* M. Brack 123 (1985) 275
Günter, P., Holography, coherent light amplification and optical phase conjugation with photorefractive materials 93 (1982) 199
Guo, J.C., *see* MARK J Collaboration 63 (1980) 337
Gupta, U. and A.K. Rajagopal, Density functional formalism at finite temperatures with some applications 87 (1982) 259

Gurevich, Yu.G. and O.L. Mashkevich, The electron–phonon drag and transport phenomena in semiconductors 181 (1989) 327
Gurevich, Yu.Ya. and Yu.I. Kharkats, Thermodynamic aspects of superionic conductivity 139 (1986) 201
Gustafson, G., *see* B. Andersson 97 (1983) 31
Gustafsson, Ch., *see* R. Bengtsson 41 (1978) 191
Gutkin, E., Quantum nonlinear Schrödinger equation: Two solutions 167 (1988) 1

Haas, F.A. and A. Thyagaraja, Conceptual and experimental bases of theories of anomalous transport in tokamaks 143 (1986) 241
Haber, H.E. and G.L. Kane, The search for supersymmetry: Probing physics beyond the standard model 117 (1985) 75
Habing, H.J., *see* J. Herman 124 (1985) 255
Habs, D., *see* V. Metag 65 (1980) 1
Hahn, H., R.R. Rau and P. Wanderer, A survey of the high energy physics program at Brookhaven National Laboratory 29 (1977) 85
Hahn, Y. and K.J. LaGattuta, Dielectronic recombination and related resonance processes 166 (1988) 195
Håkansson, H.-B., *see* M. Brack 123 (1985) 275
Hakim, V., Diffusion-controlled interface dynamics 184 (1989) 259
Hall, L.J., R.L. Jaffe and J.L. Rosner, Interpretation of unusual events from CERN and DESY 125 (1985) 103
Hamamoto, I., Particle spectra and particle-vibration coupling in the Pb region 10 (1974) 63
Hamilton, R.A.H., *see* G.P. Srivastava 38 (1978) 1
Han, R.D., *see* MARK J Collaboration 109 (1984) 131
Hanamura, E. and H. Haug, Condensation effects of excitons 33 (1977) 209
Hänggi, P. and H. Thomas, Stochastic processes: Time evolution, symmetries and linear response 88 (1982) 207
Hanke, W., *see* A. Muramatsu 113 (1984) 97
Hanne, G.F., Spin effects in inelastic electron–atom collisions 95 (1983) 95
Hansen, J.-P., *see* M. Baus 59 (1980) 1
Hansen, O., *see* D.R. Bes 34 (1977) 1
Hansma, P.K., Inelastic electron tunneling 30 (1977) 145
Hanson, A.J., *see* T. Eguchi 66 (1980) 213
Hao, B.L., *see* K.C. Chou 118 (1985) 1
Harari, H., Quarks and leptons 42 (1978) 235
Harari, H., Composite models for quarks and leptons 104 (1984) 159
Hariri, A., *see* MARK J Collaboration 63 (1980) 337
Haroche, S., *see* M. Gross 93 (1982) 301
Harris, R., *see* R.W. Cochrane 48 (1978) 1
Harrison, M.F.A., The role of atomic and molecular processes in fusion research 37 (1978) 59
Harting, D., *see* MARK J Collaboration 109 (1984) 131
Hartle, J.B., Bounds on the mass and moment of inertia of non-rotating neutron stars 46 (1978) 201
Hartmann, S.R., *see* R. Friedberg 7 (1973) 101
Hasegawa, S., *see* C.M.G. Lattes 65 (1980) 151
Hasenfratz, P. and J. Kuti, The quark bag model 40 (1978) 75
Hasenfratz, P. and F. Karsch, Finite fermion density on the lattice 103 (1984) 219
Hashimoto, M., *see* K. Nomoto 163 (1988) 13
Haug, H., *see* E. Hanamura 33 (1977) 209

Haug, H., *see* C. Klingshirn 70 (1981) 315
Haus, J.W. and K.W. Kehr, Diffusion in regular and disordered lattices 150 (1987) 263
Havinga, E.E. and M.H. van Maaren, Brillouin zone effects on the critical temperature of superconductors and some related normal metal properties 10 (1974) 107
Hawkes, D.J., *see* D.F. Jackson 70 (1981) 169
Hayakawa, S., X-rays from accreting neutron stars 121 (1985) 317
Hayashi, A., *see* B. Schwesinger 173 (1989) 173
Haydock, R., Preface 110 (1984) 269
Hazeltine, R.D. and J.D. Meiss, Shear-Alfvén dynamics of toroidally confined plasmas 121 (1985) 1
Head, J.L., A.J.H. Goddard and P.J. Grant, Nuclear reactor safety 53 (1979) 249
Hebach, H., *see* M. Gari 72 (1981) 1
Hebbeker, T., *see* MARK J Collaboration 109 (1984) 131
Heinz, U., *see* H.-T. Elze 183 (1989) 81
Hendrie, D.L., *see* C.K. Gelbke 42 (1978) 311
Henneaux, M., Hamiltonian form of the path integral for theories with a gauge freedom 126 (1985) 1
Henry, R.J.W., Excitation of atomic positive ions by electron impact 68 (1981) 1
Herman, J. and H.J. Habing, OH/IR stars 124 (1985) 255
Hermann, H.J., Geometrical cluster growth models and kinetic gelation 136 (1986) 153
Hertel, I.V., *see* N. Andersen 165 (1988) 1
Herten, G., *see* MARK J Collaboration 63 (1980) 337
Herten, G., *see* MARK J Collaboration 109 (1984) 131
Hewett, J.L. and T.G. Rizzo, Low-energy phenomenology of superstring-inspired E_6 models 183 (1989) 193
Hey, A.J.G. and R.L. Kelly, Baryon spectroscopy 96 (1983) 71
Heyde, K., M. Waroquier and H. Vincx, Microscopic structure of nuclei from scattering through isobaric analogue resonances 26 (1976) 227
Heyde, K., P. Van Isacker, M. Waroquier, J.L. Wood and R.A. Meyer, Coexistence in odd-mass nuclei 102 (1983) 291
Heyde, K., *see* M. Waroquier 148 (1987) 249
Heyland, G.R., *see* T.C. Griffith 39 (1978) 169
Hidaka, K., *see* N.S. Craigie 99 (1983) 69
Hietarinta, J., Direct methods for the search of the second invariant 147 (1987) 87
Higgins, R.J. and J.T. Moseley (editors), Electrons in atoms and solids. Proceedings of the Symposium Honoring Professor Gregory Wannier at the University of Oregon, Eugene, Oregon, May 19 and 20, 1983 110 (1984) 265
Hiley, B.J., *see* D. Bohm 144 (1987) 321
Hiley, B.J., *see* D. Bohm 172 (1989) 93
Hillas, A.M., Some recent developments in cosmic rays 20 (1975) 59
Hillery, M., R.F. O'Connell, M.O. Scully and E.P. Wigner, Distribution functions in physics: Fundamentals 106 (1984) 121
Hines, K.C., *see* V. Kowalenko 126 (1985) 109
Hioe, F.T., D. MacMillen and E.W. Montroll, Quantum theory of anharmonic oscillators: energy levels of a single and a pair of coupled oscillators with quartic coupling 43 (1978) 305
Hippler, R., *see* U. Wille 132 (1986) 129
Hirose, A., *see* H. de Kluiver 199 (1991) 281
Ho, M.C., *see* MARK J Collaboration 63 (1980) 337
Ho, M.C., *see* MARK J Collaboration 109 (1984) 131

Ho, Y.K., The method of complex coordinate rotation and its applications to atomic collision processes 99 (1983) 1
Ho Tso-hsiu, *see* Ching Cheng-rui 112 (1984) 1
Høegh-Krohn, R., *see* S. Albeverio 77 (1981) 193
Høegh-Krohn, R., *see* Ph. Combe 77 (1981) 221
Hoff, A.J., Applications of ESR in photosynthesis 54 (1979) 75
Hofmann, A., *see* R. Chrien 64 (1980) 249
Hofstadter, D.R., A nose for depth: Gregory Wannier's style in physics 110 (1984) 273
Hogan, J.T., Atomic and molecular data needs, priorities, and accuracies for Tokamak beam injection 37 (1978) 83
Hogg, T. and B.A. Huberman, Artificial intelligence and large scale computation: A physics perspective 156 (1987) 227
Holinde, K., Two-nucleon forces and nuclear matter 68 (1981) 121
Holinde, K., *see* R. Machleidt 149 (1987) 1
Holland, P.R., Causal interpretation of a system of two spin-1/2 particles 169 (1988) 293
Holm, D.D., J.E. Marsden, T. Ratiu and A. Weinstein, Nonlinear stability of fluid and plasma equilibria 123 (1985) 1
Holm, D.D., *see* D. David 187 (1990) 281
Holmes, P., Poincaré, celestial mechanics, dynamical-systems theory and "chaos" 193 (1990) 137
Holstein, B., *see* J.F. Donoghue 131 (1986) 319
Holzwarth, G., *see* B. Schwesinger 173 (1989) 173
Hönerlage, B., R. Lévy, J.B. Grun, C. Klingshirn and K. Bohnert, The dispersion of excitons, polaritons and biexcitons in direct-gap semiconductors 124 (1985) 161
Hopman, H.J., *see* P.C. de Jagher 167 (1988) 177
Hora, H., *see* S. Eliezer 172 (1989) 339
Horn, D., Many-particle production 4 (1972) 1
Horn, D., Phase structure of the Z(2) gauge and matter theory 67 (1980) 103
Horn, T.C.M., *see* A.W. Kleyn 199 (1991) 191
Horstman, R.E., *see* J.A. Pals 89 (1982) 323
Horton, W., Nonlinear drift waves and transport in magnetized plasma 192 (1990) 1
Horton Jr., W. and D.-I. Choi, Renormalized turbulence theory for the ion acoustic problem 49 (1979) 273
Hošek, J., *see* S.M. Bilenky 90 (1982) 73
Hospes, R., *see* UA5 Collaboration 154 (1987) 247
Howson, M.A. and B.L. Gallagher, The electron transport properties of metallic glasses 170 (1988) 265
Hsu, H.K., *see* MARK J Collaboration 63 (1980) 337
Hu, B., Introduction to real-space renormalization-group methods in critical and chaotic phenomena 91 (1982) 233
Huberman, B.A., *see* J.B. Boyce 51 (1979) 189
Huberman, B.A., *see* J.P. Crutchfield 92 (1982) 45
Huberman, B.A., *see* T. Hogg 156 (1987) 227
Hudson, P.N., *see* N. Anyas-Weiss 12 (1974) 201
Huebener, R.P., Dynamics of magnetic flux structures in superconductors 13 (1974) 143
Hüffel, H., *see* P.H. Damgaard 152 (1987) 227
Hüfner, J., Pions interact with nuclei 21 (1975) 1
Hüfner, J., Heavy fragments produced in proton–nucleus and nucleus–nucleus collisions at relativistic energies 125 (1985) 129
Hüfner, S., *see* R. Courths 112 (1984) 53
Hughston, L.P. and T.R. Hurd, A CP^5 calculus for space-time fields 100 (1983) 273

Huizenga, J.R., *see* W.U. Schröder 45 (1978) 301
Huizenga, J.R., *see* J.R. Birkelund 56 (1979) 107
Hurd, T.R., *see* L.P. Hughston 100 (1983) 273
Hussain, M., *see* MARK J Collaboration 109 (1984) 131
Hussein, M.S., *see* W.A. Friedman 77 (1981) 47
Hussein, M.S., A.J. Baltz and B.V. Carlson, Polarization potentials in heavy-ion scattering 113 (1984) 133
Hussein, M.S., *see* M.P. Pato 189 (1990) 127

Iakubov, I.T., *see* V.A. Alekseev 96 (1983) 1
Iben Jr., I. and A. Renzini, Single star evolution I. Massive stars and early evolution of low and intermediate mass stars 105 (1984) 329
Ichimaru, S., H. Iyetomi and S. Tanaka, Statistical physics of dense plasmas: Thermodynamics, transport coefficients and dynamic correlations 149 (1987) 91
Ichimura, M., *see* U. Götz 16 (1975) 115
Igarashi, M., K.-I. Kubo and K. Yagi, Two-nucleon transfer reaction mechanisms 199 (1991) 1
Igi, K., *see* M. Fukugita 31 (1977) 237
Ilyas, M.M., *see* MARK J Collaboration 109 (1984) 131
Imanishi, B. and W. von Oertzen, Molecular orbitals of nucleons in nucleus–nucleus collisions 155 (1987) 29
Ingelman, G., *see* B. Andersson 97 (1983) 31
Ingold, G.-L., *see* H. Grabert 168 (1988) 115
Irving, A.C. and R.P. Worden, Regge phenomenology 34 (1977) 117
Isenberg, J. and J.E. Marsden, A slice theorem for the space of solutions of Einstein's equations 89 (1982) 179
Iseri, Y., *see* N. Austern 154 (1987) 125
Ishkanov, B.S., *see* R.A. Eramzhyan 136 (1986) 229
Itikawa, Y., Electron scattering by polar molecules 46 (1978) 117
Itikawa, Y., Distorted-wave methods in electron-impact excitation of atoms and ions 143 (1986) 69
Itzykson, C., Gauge fields on a lattice 23 (1976) 368
Itzykson, C., *see* J.M. Drouffe 38 (1978) 133
Itzykson, C., Duality for discrete lattice gauge fields 49 (1979) 199
Itzykson, C., Y. Pomeau and N. Sourlas (editors), Common trends in particle and condensed matter physics. Proceedings of Les Houches Winter Advanced Study Institute, February 1983 103 (1984) 1
Itzykson, C., S. Kirkpatrick, G. Parisi, N. Sourlas and M.A. Virasoro (editors), Common trends in statistical physics and field theory, Proc. Cargèse Advanced Research Workshop 184 (1989) 99
Ivanenko, D. and G. Sardanashvily, The gauge treatment of gravity 94 (1983) 1
Ivanov, B.A., *see* A.M. Kosevich 194 (1990) 117
Ivanov, L.N., E.P. Ivanova and E.V. Aglitsky, Modern trends in the spectroscopy of multicharged ions 164 (1988) 315
Ivanov, M.A., V.M. Loktev and Yu.G. Pogorelov, Long-range impurity states in magnetic crystals 153 (1987) 209
Ivanova, E.P., *see* L.N. Ivanov 164 (1988) 315
Iyetomi, H., *see* S. Ichimaru 149 (1987) 91
Izrailev, F.M., Simple models of quantum chaos: spectrum and eigenfunctions 196 (1990) 299

Jackiw, R., The quantum theory of solitons and other non-linear classical waves 23 (1976) 273

Jackson, A.D., *see* B.K. Jennings 66 (1980) 141
Jackson, A.D., A. Lande and R.A. Smith, Variational and perturbation theories made planar 86 (1982) 55
Jackson, A.D., *see* L. Vepstas 187 (1990) 109
Jackson, D.F. and D.J. Hawkes, X-ray attenuation coefficients of elements and mixtures 70 (1981) 169
Jacob, M. and P.V. Landshoff, Large transverse momentum and jet studies 48 (1978) 285
Jacob, M., *see* G. Giacomelli 55 (1979) 1
Jacob, M., *see* L. van Hove 62 (1980) 1
Jacob, M. and J. Tran Thanh Van (editors), Quark matter formation and heavy ion collisions. A general review and status report 88 (1982) 321
Jacob, M., Introduction 88 (1982) 325
Jacob, M., *see* N.S. Craigie 99 (1983) 69
Jacob, M., *see* A. Martin 134 (1986) 273
Jacob, M., *see* A. Martin 134 (1986) 277
Jacobs, J.A., Reversals of the Earth's magnetic field 26 (1976) 183
Jacobs, L., *see* M. Creutz 95 (1983) 201
Jaffe, R.L., *see* L.J. Hall 125 (1985) 103
Jain, A., *see* F.A. Gianturco 143 (1986) 347
Jain, A.K., K.K. Likharev, J.E. Lukens and J.E. Sauvageau, Mutual phase-locking in Josephson junction arrays 109 (1984) 309
Janev, R.K., L.P. Presnyakov, Collision processes of multiply charged ions with atoms 70 (1981) 1
Janev, R.K. and H. Winter, State-selective electron capture in atom–highly charged ion collisions 117 (1985) 265
Janev, R.K., *see* M.I. Chibisov 166 (1988) 1
Janik, J.A., Neutron scattering by molecular solids 66 (1980) 1
Janssen, T., Aperiodic crystals: a contradictio in terminis? 168 (1988) 55
Jantzen, R.T., *see* K. Rosquist 166 (1988) 89
Jennings, B.K., *see* G.E. Brown 50 (1979) 227
Jennings, B.K. and A.D. Jackson, Collective states in nuclei. A tale of two sounds 66 (1980) 141
Jennings, B.K., *see* N.L. Balazs 104 (1984) 347
Jeukenne, J.P., A. Lejeune and C. Mahaux, Many-body theory of nuclear matter 25 (1976) 83
Jevicki, A., *see* J.L. Gervais 23 (1976) 281
Jiang, D.Z., *see* MARK J Collaboration 109 (1984) 131
Joachain, C.J., *see* F.W. Byron Jr. 34 (1977) 233
Joachain, C.J., *see* F.W. Byron Jr. 179 (1989) 211
Johnson, A. and Z. Szymański, Nuclear rotation at high angular velocities 7 (1973) 181
Johnson, D., *see* UA5 Collaboration 154 (1987) 247
Jon-And, K., *see* UA5 Collaboration 154 (1987) 247
Jona-Lasinio, G., F. Martinelli and E. Scoppola, The semiclassical limit of quantum mechanics: A qualitative theory via stochastic mechanics 77 (1981) 313
Jones, D.A., *see* G.W. Kentwell 145 (1987) 319
Jones, R., Laboratory plasma devices 61 (1980) 295
Joshi, G.C., *see* R.R. Volkas 159 (1988) 303

Kac, M., *see* R.M. Ziff 32 (1977) 169
Kadel, R.W., *see* MARK J Collaboration 63 (1980) 337
Kadlec, J., Theory of internal photoemission in sandwich structures 26 (1976) 69
Kaganov, M.I. and A.A. Slutskin, Coherent magnetic breakdown 98 (1983) 189
Kaidalov, A.B., Diffractive production mechanisms 50 (1979) 157

Kalinowski, H., *see* D.H.E. Gross 45 (1978) 175
Kaloyerou, P.N., *see* D. Bohm 144 (1987) 321
Kamimura, M., *see* N. Austern 154 (1987) 125
Kamran, M., A review of elastic hadronic scattering at high energies and small momentum transfers 108 (1984) 275
Kandrup, H.E., Stochastic gravitational fluctuations in a self-consistent mean field theory 63 (1980) 1
Kane, G.L., *see* H.E. Haber 117 (1985) 75
Kane, P.P., L. Kissel, R.H. Pratt and S.C. Roy, Elastic scattering of γ-rays and X-rays by atoms 140 (1986) 75
Kaner, E.A. and L.V. Chebotarev, The spatial dispersion of conductivity in one-dimensional disordered metals 150 (1987) 179
Kaner, E.A. and Y.V. Tarasov, A theory of sound propagation in disordered one-dimensional metals 165 (1988) 189
Kanert, O., Dynamical properties of defects in solids 91 (1982) 183
Kapitonov, I.M., *see* R.A. Eramzhyan 136 (1986) 229
Kaplan, S.A. and V.N. Tsytovich, Plasma processes in the Universe 7 (1973) 1
Kaplan, S.A., S.B. Pikel'ner and V.N. Tsytovich, Plasma physics of the solar atmosphere 15 (1974) 1
Kapusta, J., Heavy ion collisions in the hydrodynamical model 88 (1982) 365
Kapusta, J.I., *see* L.P. Csernai 131 (1986) 223
Karlsson, E., The use of positive muons in metal physics 82 (1982) 271
Karowski, M., Exact S-matrices and form factors in $1+1$ dimensional field theoretic models with soliton behaviour 49 (1979) 229
Karsch, F., *see* P. Hasenfratz 103 (1984) 219
Kastrup, H.A., Canonical theories of Lagrangian dynamical systems in physics 101 (1983) 1
Kawai, M., *see* N. Austern 154 (1987) 125
Kazantsev, A.P., G.A. Ryabenko, G.I. Surdutovich and V.P. Yakovlev, Scattering of atoms by light 129 (1985) 75
Kehr, K.W., *see* J.W. Haus 150 (1987) 263
Keiter, H. and G. Morandi, Thermodynamic perturbation theory for systems with strong local correlations 109 (1984) 227
Kelly, R.L., *see* A.J.G. Hey 96 (1983) 71
Kentwell, G.W. and D.A. Jones, The time-dependent ponderomotive force 145 (1987) 319
Kernan, A. and G. VanDalen, Charm and beauty production in strong interactions 106 (1984) 297
Kernan, A., *see* N. Ellis 195 (1990) 23
Khait, Yu.L., Kinetic many-body theory of short-lived large energy fluctuations of small numbers of particles in solids and its applications 99 (1983) 237
Khan, M., *see* B. Chakraborty 114 (1984) 181
Khandekar, D.C. and S.V. Lawande, Feynman path integrals: Some exact results and applications 137 (1986) 115
Kharchenko, N.F., *see* V.V. Eremenko 155 (1987) 379
Kharkats, Yu.I., *see* Yu.Ya. Gurevich 139 (1986) 201
Khodel, V.A. and E.E. Saperstein, Finite Fermi systems theory and self-consistency relations 92 (1982) 183
Khoze, V.A., *see* V.N. Baier 78 (1981) 293
Kibble, T.W.B., Some implications of a cosmological phase transition 67 (1980) 183
Kim, D.J., The electron–phonon interaction and itinerant electron magnetism 171 (1988) 129
Kim, J.E., Light pseudoscalars, particle physics and cosmology 150 (1987) 1

Kimball, J.C. and N. Cue, Quantum electrodynamics and channeling in crystals 125 (1985) 69
Kincaid, J.M. and E.G.D. Cohen, Phase diagrams of liquid helium mixtures and metamagnets: experiment and mean field theory 22 (1975) 57
Kirk, T.B.W., *see* W.R. Francis 54 (1979) 307
Kirkpatrick, S., *see* C. Itzykson 184 (1989) 99
Kirzhnits, D.A., *see* V.L. Ginzburg 4 (1972) 343
Kislinger, M.B., *see* P.D. Morley 51 (1979) 63
Kissel, L., *see* P.P. Kane 140 (1986) 75
Kivshar, Yu.S., *see* F.G. Bass 157 (1988) 63
Klein, A., *see* J. Rafelski 38 (1978) 227
Klein, A., Stochastic processes associated with quantum systems 77 (1981) 329
Kleinknecht, K., Particle detectors 84 (1982) 85
Kleinpoppen, H., *see* K. Blum 52 (1979) 203
Kleinpoppen, H., *see* K. Blum 96 (1983) 251
Kleyn, A.W., J. Los and E.A. Gislason, Vibronic coupling at intersections of covalent and ionic states 90 (1982) 1
Kleyn, A.W. and T.C.M. Horn, Rainbow scattering from solid surfaces 199 (1991) 191
Klimontovich, Yu.L., H. Wilhelmsson, I.P. Yakimenko and A.G. Zagorodny, Statistical theory of plasma–molecular systems 175 (1989) 263
Klinger, M.I., Atomic quantum diffusion, tunneling states and some related phenomena in condensed systems 94 (1983) 183
Klinger, M.I., Glassy disordered systems: topology, atomic dynamics and localized electron states 165 (1988) 275
Klingshirn, C. and H. Haug, Optical properties of highly excited direct gap semiconductors 70 (1981) 315
Klingshirn, C., *see* B. Hönerlage 124 (1985) 161
Klucharev, A.N. and V. Vujnović, Chemi-ionization in thermal-energy binary collisions of optically excited atoms 185 (1990) 55
Knies, G., *see* L. Criegee 83 (1982) 151
Knight, P.L. and P.W. Milonni, The Rabi frequency in optical spectra 66 (1980) 21
Knight, P.L., M.A. Lauder and B.J. Dalton, Laser-induced continuum structure 190 (1990) 1
Knoll, J. and R. Schaeffer, Complex paths and uniform approximations in a semi-classical description of direct reactions 31 (1977) 159
Ko, M., M. Ludvigsen, E.T. Newman and K.P. Tod, The theory of $\mathcal{H}$-space 71 (1981) 51
Koch, E.E., C. Kunz and B. Sonntag, Electronic states in solids investigated by means of synchrotron radiation 29 (1977) 153
Koch, P., B. Müller and J. Rafelski, Strangeness in relativistic heavy ion collisions 142 (1986) 167
Koeling, T. and R.A. Malfliet, Semi-classical approximations to heavy ion scattering based on the Feynman path-integral method 22 (1975) 181
Kogut, J. and L. Susskind, The parton picture of elementary particles 8 (1973) 75
Kogut, J., *see* K.G. Wilson 12 (1974) 75
Kogut, J., *see* L. Susskind 23 (1976) 348
Kogut, J.B., Progress in lattice gauge theory 67 (1980) 67
Köhler, H.S., Brueckner theory of nuclei 18 (1975) 217
Kok, L.P., *see* A.M. Badalyan 82 (1982) 31
Kokott, Th., *see* UA5 Collaboration 154 (1987) 247
Komarov, F.F., *see* V.V. Beloshitsky 93 (1982) 117
Komarov, F.F., *see* V.V. Beloshitsky 139 (1986) 293
Komarov, F.F., *see* M.A. Kumakhov 191 (1990) 289

Königsmann, K., Radiative decays in the ψ family 139 (1986) 243
Konishi, K., *see* D. Amati 162 (1988) 169
Konotop, V.V., *see* F.G. Bass 157 (1988) 63
Kopeliovich, V.B., Long and intermediate range phenomena; selected topics in high energy nuclear physics 139 (1986) 51
Köpke, L. and N. Wermes, J/ψ decays 174 (1989) 67
Kopystyńska, A. and L. Moi, Energy transfer in collisions between excited atoms 92 (1982) 135
Korepin, V.E., *see* L.D. Faddeev 42 (1978) 1
Kosevich, A.M., B.A. Ivanov and A.S. Kovalev, Magnetic solitons 194 (1990) 117
Kovalev, A.S., *see* A.M. Kosevich 194 (1990) 117
Kovrizhnykh, L.M., *see* S.V. Bulanov 186 (1990) 1
Kowalenko, V., N.E. Frankel and K.C. Hines, Response theory of particle–anti-particle plasmas 126 (1985) 109
Kratz, J.V., *see* H. Freiesleben 106 (1984) 1
Kreines, N.M., *see* A.S. Borovik-Romanov 81 (1982) 351
Krenz, W., *see* MARK J Collaboration 63 (1980) 337
Krenz, W., *see* MARK J Collaboration 109 (1984) 131
Krewald, S., K. Nakayama and J. Speth, Meson exchange models of the nuclear response function 161 (1988) 103
Krishnamurthy, H.R., *see* A. Kumar 98 (1983) 57
Krüger, G.J., Diffusion in thermotropic liquid crystals 82 (1982) 229
Kubo, K.-I., *see* M. Igarashi 199 (1991) 1
Kugo, T., *see* M. Bando 164 (1988) 217
Kühn, J.H. and P.M. Zerwas, The toponium scenario 167 (1988) 321
Kuijer, P., *see* MARK J Collaboration 109 (1984) 131
Kumakhov, M.A., *see* V.V. Beloshitsky 139 (1986) 293
Kumakhov, M.A. and F.F. Komarov, Multiple reflection from surface X-ray optics 191 (1990) 289
Kumar, A., H.R. Krishnamurthy and E.S.R. Gopal, Equilibrium critical phenomena in binary liquid mixtures 98 (1983) 57
Kumar, A., Soliton dynamics in a monomode optical fibre 187 (1990) 63
Kumar, K., The physics of swarms and some basic questions of kinetic theory 112 (1984) 319
Kümmel, H., K.H. Lührmann and J.G. Zabolitzky, Many-fermion theory in exp *S*- (or coupled cluster) form 36 (1978) 1
Kunz, C., *see* E.E. Koch 29 (1977) 153
Kuraev, E.A., *see* V.N. Baier 78 (1981) 293
Kurdyumov, S.P., *see* T.S. Akhromeyeva 176 (1989) 189
Kusmartsev, F.V., Application of catastrophe theory to molecules and solitons 183 (1989) 1
Kuti, J., *see* P. Hasenfratz 40 (1978) 75
Kuzmin, V.L., Many-body correlations in the problems of electrodynamics of fluids 123 (1985) 365
Kuznetsov, E.A., A.M. Rubenchik and V.E. Zakharov, Soliton stability in plasmas and hydrodynamics 142 (1986) 103
Kvasnička, V., V. Laurinc and S. Biskupič, Coupled-cluster approach in electronic structure theory of molecules 90 (1982) 159
Kwok, Sun, Effects of mass loss on the late stages of stellar evolution 156 (1987) 111
Kyprianidis, A., Scalar time parametrization of relativistic quantum mechanics: The covariant Schrödinger formalism 155 (1987) 1

LaGattuta, K.J., *see* Y. Hahn 166 (1988) 195
Lagendijk, A., *see* H. De Raedt 127 (1985) 233

Laget, J.M., Pion photoproduction on few body systems 69 (1981) 1
Lahanas, A.B. and D.V. Nanopoulos, The road to no-scale supergravity 145 (1987) 1
Lamb, F.K. and D. ter Haar, The interaction of atoms with polarised light 2 (1971) 253
Landau, R.H., *see* A.W. Thomas 58 (1980) 121
Lande, A., *see* A.D. Jackson 86 (1982) 55
Landowne, S., *see* R.A. Broglia 11 (1974) 1
Landsberg, L.G., Electromagnetic decays of light mesons 128 (1985) 301
Landshoff, P.V. and J.C. Polkinghorne, Models for hadronic and leptonic processes at high energy 5 (1972) 1
Landshoff, P.V., *see* M. Jacob 48 (1978) 285
Landsman, N.P. and Ch.G. van Weert, Real- and imaginary-time field theory at finite temperature and density 145 (1987) 141
Lane, A.M., *see* E.G. Bilpuch 28 (1976) 145
Lane, A.M., *see* O. Bohigas 51 (1979) 267
Lane, A.M., *see* G.E. Mitchell 117 (1985) 1
Langacker, P., Grand unified theories and proton decay 72 (1981) 185
Langer, M., *see* UA5 Collaboration 154 (1987) 247
Lattes, C.M.G., Y. Fujimoto and S. Hasegawa, Hadronic interactions of high energy cosmic-ray observed by emulsion chambers 65 (1980) 151
Lattimer, J.M., *see* A. Burrows 163 (1988) 51
Lauder, M.A., *see* P.L. Knight 190 (1990) 1
Laurinc, V., *see* V. Kvasnička 90 (1982) 159
Lautrup, B.E., A. Peterman and E. de Rafael, Recent developments in the comparison between theory and experiments in quantum electrodynamics 3 (1972) 193
Lawande, S.V., *see* D.C. Khandekar 137 (1986) 115
Le Bellac, M., *see* V. Alessandrini 1 (1971) 269
Lea, K.R., Highlights of synchrotron radiation 43 (1978) 337
Leader, E., *see* C. Bourrely 59 (1980) 95
Lederman, L.M., Lepton production in hadron collisions 26 (1976) 149
Lee, B.W., *see* E.S. Abers 9 (1973) 1
Lee, T.D., *CP* nonconservation and spontaneous symmetry breaking 9 (1974) 143
Lee, T.D., Examples of four-dimensional soliton solutions and abnormal nuclear states 23 (1976) 254
Lee-Franzini, J., *see* P. Franzini 81 (1982) 239
Leibler, S., An introduction to the statistical mechanics of fluctuating membranes 184 (1989) 265
Leising, M.D., *see* D.D. Clayton 144 (1987) 1
Lejeune, A., *see* J.P. Jeukenne 25 (1976) 83
Lemaire, M.-C., Spectroscopic study of multinucleon transfer reactions induced by heavy ions 7 (1973) 279
LeMere, M., *see* Y.C. Tang 47 (1978) 167
Lenstra, D., On the theory of polarization effects in gas lasers 59 (1980) 299
Leplae, L., H. Umezawa and F. Mancini, Derivation and application of the boson method in superconductivity 10 (1974) 151
Lequeux, J. and E. Roueff, Interstellar molecules 200 (1991) 241
Lerche, W., A.N. Schellekens and N.P. Warner, Lattices and strings 177 (1989) 1
Leroy, C., *see* D.A. Bryman 88 (1982) 151
Leskova, T.A., *see* A.A. Abrikosov 194 (1990) 239
Letokhov, V.S. and V.G. Minogin, Laser radiation pressure on free atoms 73 (1981) 1
Leutwyler, H., *see* J. Gasser 87 (1982) 77
Levanyuk, A.P., *see* V.L. Ginzburg 57 (1980) 151

Levich, E. and E. Tzvetkov, Helical inverse cascade in three-dimensional turbulence as a fundamental dominant mechanism in mesoscale atmospheric phenomena 128 (1985) 1
Levich, E., Certain problems in the theory of developed hydrodynamical turbulence 151 (1987) 129
Levin, E.M., *see* L.V. Gribov 100 (1983) 1
Levin, E.M. and M.G. Ryskin, High energy hadron collisions in QCD 189 (1990) 267
Levin, K. and O.T. Valls, Phenomenological theories of liquid ^{3}He 98 (1983) 1
Lévy, R., *see* B. Hönerlage 124 (1985) 161
Lewin, J.D., *see* P.F. Smith 187 (1990) 203
Lewis, E.L., Collisional relaxation of atomic excited states, line broadening and interatomic interactions 58 (1980) 1
Lewis, J.T., Quantum stochastic processes I 77 (1981) 339
Lewis, L.L., *see* E.N. Fortson 113 (1984) 289
Li, J., *see* MARK J Collaboration 63 (1980) 337
Li, K.H., Physics of open systems 134 (1986) 1
Li, Q.Z., *see* MARK J Collaboration 63 (1980) 337
Li, Q.Z., *see* MARK J Collaboration 109 (1984) 131
Liberman, M.A. and A.L. Velikovich, Physics of ionizing shock waves in magnetic fields 84 (1982) 1
Liedenbaum, C., S. Stolte and J. Reuss, Inversion produced and reversed by adiabatic passage 178 (1989) 1
Likharev, K.K., *see* A.K. Jain 109 (1984) 309
Lin, D.M. and E.K. Wong, A survey on the maximum entropy method and parameter spectral estimation 193 (1990) 41
Lindgren, I. and D. Mukherjee, On the connectivity criteria in the open-shell coupled-cluster theory for general model spaces 151 (1987) 93
Lindman, B., *see* H. Wennerström 52 (1979) 1
Lines, M.E., Elastic properties of magnetic materials 55 (1979) 133
Liotta, R., *see* R.A. Broglia 29 (1977) 291
Liotta, R., *see* P.F. Bortignon 30 (1977) 305
Lipkin, H.J., Quarks for pedestrians 8 (1973) 173
Lipparini, E. and S. Stringari, Sum rules and giant resonances in nuclei 175 (1989) 103
Littlejohn, R.G., The semiclassical evolution of wave packets 138 (1986) 193
Litvinenko, Yu.G., *see* V.V. Eremenko 132 (1986) 55
Liu, C.S. and V.K. Tripathi, Parametric instabilities in a magnetized plasma 130 (1986) 143
Llewellyn Smith, C.H., Neutrino reactions at accelerator energies 3 (1972) 261
Llewellyn Smith, C.H., Supersymmetry and its experimental consequences 105 (1984) 53
Lloyd Owen, D., *see* J. Rich 151 (1987) 239
Lo Vecchio, G., *see* G. Morandi 188 (1990) 147
Locher, M.P. and T. Mizutani, The use of analyticity in nuclear physics 46 (1978) 43
Lohr, B., *see* R.J. Cashmore 122 (1985) 275
Loktev, V.M., *see* M.A. Ivanov 153 (1987) 209
Longa, L., *see* E.F. Gramsbergen 135 (1986) 195
Longo, E., *see* M. Diemoz 130 (1986) 293
Lorenz, A. (organizer), Atomic and molecular data for controlled thermonuclear fusion. Invited papers at IAEA advisory meeting, Vienna, November 1976 37 (1978) 53
Los, J., *see* A.W. Kleyn 90 (1982) 1
Los, J. and J.J.C. Geerlings, Charge exchange in atom–surface collisions 190 (1990) 133
Lotse, F., *see* UA5 Collaboration 154 (1987) 247
Love, A., *see* D. Bailin 107 (1984) 325

Love, W.G., *see* G.R. Satchler 55 (1979) 183
Lu, M., *see* MARK J Collaboration 63 (1980) 337
Lubitz, W., *see* K. Möbius 87 (1982) 171
Lucchese, R.R., K. Takatsuka and V. McKoy, Applications of the Schwinger variational principle to electron–molecule collisions and molecular photoionization 131 (1986) 147
Lucha, W., F.F. Schöberl and D. Gromes, Bound states of quarks 200 (1991) 127
Luckey, D., *see* MARK J Collaboration 63 (1980) 337
Luckey, D., *see* MARK J Collaboration 109 (1984) 131
Ludvigsen, M., *see* M. Ko 71 (1981) 51
Lührmann, K.H., *see* H. Kümmel 36 (1978) 1
Luit, E.J., *see* MARK J Collaboration 109 (1984) 131
Lukens, J.E., *see* A.K. Jain 109 (1984) 309
Lusanna, L., An enlarged phase space for finite-dimensional constrained systems, unifying their Lagrangian phase- and velocity-space descriptions 185 (1990) 1
Lüscher, M., *see* A. D'Adda 49 (1979) 239
Lüscher, M., Analytic calculation of the mass gap in O(n) non-linear σ-models 103 (1984) 233
Luther, A., Bosonized fermions in three dimensions 49 (1979) 261
Luzzi, R. and L.C.M. Miranda, Optical properties of semiconductors under intense laser fields 43 (1978) 423
Lyons, L., Quark search experiments at accelerators and in cosmic rays 129 (1985) 225

Ma, C.M., *see* MARK J Collaboration 63 (1980) 337
Ma, D.A., *see* MARK J Collaboration 63 (1980) 337
Maalampi, J. and M. Roos, Physics of mirror fermions 186 (1990) 53
Maartens, R., *see* G.F.R. Ellis 124 (1985) 315
MacCallum, M.A.H., *see* R. Penrose 6 (1973) 241
MacDonald, R.A. and D.H. Tsai, Molecular dynamical calculations of energy transport in crystalline solids 46 (1978) 1
MacGillivray, W.R. and M.C. Standage, Stepwise electron and laser excitation of atoms 168 (1988) 1
Machleidt, R., K. Holinde and Ch. Elster, The Bonn meson-exchange model for the nucleon–nucleon interaction 149 (1987) 1
Machner, H., Fast particle emission from nuclear reactions 127 (1985) 309
Macías, A. and A. Riera, Ab initio quantum chemistry in the molecular model of atomic collisions 90 (1982) 299
Mackenzie, R., *see* UA5 Collaboration 154 (1987) 247
MacMillen, D., *see* F.T. Hioe 43 (1978) 305
Madore, J., Geometric methods in classical field theory 75 (1981) 125
Madore, J.L., J.L. Richard and R. Stora, An introduction to the twistor programme 49 (1979) 113
Maggs, M.N., *see* UA5 Collaboration 154 (1987) 247
Mahan, G.D., Electron transport in solids 110 (1984) 321
Mahan, G.D., Quantum transport equation for electric and magnetic fields 145 (1987) 251
Mahaux, C., *see* J.P. Jeukenne 25 (1976) 83
Mahaux, C., P.F. Bortignon, R.A. Broglia and C.H. Dasso, Dynamics of the shell model 120 (1985) 1
Maheshwari, A., *see* C. DeWitt-Morette 50 (1979) 255
Mahoney, J., *see* C.K. Gelbke 42 (1978) 311
Maimistov, A.I., A.M. Basharov, S.O. Elyutin and Yu.M. Sklyarov, Present state of self-induced transparency theory 191 (1990) 1
Maini, P.K., *see* J.D. Murray 171 (1988) 59

Makhankov, V.G., Dynamics of classical solitons (in non-integrable systems) 35 (1978) 1
Makhankov, V.G. and V.K. Fedyanin, Non-linear effects in quasi-one-dimensional models of condensed matter theory 104 (1984) 1
Malfliet, R., *see* B. Schürmann 147 (1987) 1
Malfliet, R., *see* B. ter Haar 149 (1987) 207
Malfliet, R., *see* W. Botermans 198 (1990) 115
Malfliet, R.A., *see* R.A. Broglia 11 (1974) 1
Malfliet, R.A., *see* T. Koeling 22 (1975) 181
Malin, S., *see* M. Carmeli 76 (1981) 79
Malinetskii, G.G., *see* T.S. Akhromeyeva 176 (1989) 189
Mana, C., *see* MARK J Collaboration 109 (1984) 131
Manakov, N.L., V.D. Ovsiannikov and L.P. Rapoport, Atoms in a laser field 141 (1986) 319
Manassah, J.T., *see* R. Friedberg 7 (1973) 101
Manassah, J.T., Statistical quantum electrodynamics of resonant atoms 101 (1983) 359
Mancini, F., *see* L. Leplae 10 (1974) 151
Mandal, P., *see* A.S. Ghosh 87 (1982) 313
Mandelstam, S., Dual-resonance models 13 (1974) 259
Mandelstam, S., Vortices and quark confinement in non-Abelian gauge theories 23 (1976) 245
Mandelstam, S., Soliton operators for the quantized sine-Gordon equation 23 (1976) 307
Mandelstam, S., General introduction to confinement 67 (1980) 109
Mang, H.J., The self-consistent single-particle model in nuclear physics 18 (1975) 325
Mangano, M.L. and S.J. Parke, Multi-parton amplitudes in gauge theories 200 (1991) 301
Mankoč-Borštnik, N., *see* L. Fonda 158 (1988) 159
Manneville, P., The transition to turbulence in "wide systems" 103 (1984) 107
Mantzouranis, G., *see* D. Agassi 22 (1975) 145
March, N.H., *see* R.C. Brown 24 (1976) 77
Marchesini, G., *see* A. Bassetto 100 (1983) 201
Marciano, W. and H. Pagels, Quantum chromodynamics 36 (1978) 137
Marinari, E., Deconfinement in QCD: an analysis of the phase transition 184 (1989) 131
Marinaro, M., Perturbative expansions at finite temperature 137 (1986) 81
Marinelli, M. and G. Morpurgo, Searches of fractionally charged particles in matter with the magnetic levitation technique 85 (1982) 161
Marinov, M.S., Path integrals in quantum theory: an outlook of basic concepts 60 (1980) 1
Mariwalla, K., Dynamical symmetries in mechanics 20 (1975) 287
MARK J Collaboration, D.P. Barber, U. Becker, H. Benda, A. Böhm, J.G. Branson, J. Bron, D. Buikman, J.D. Burger, C.C. Chang, H.S. Chen, M. Chen, C.P. Cheng, Y.S. Chu, R. Clare, P. Duinker, G.Y. Fang, H. Fesefeldt, D. Fong, M. Fukushima, J.C. Guo, A. Hariri, G. Herten, M.C. Ho, H.K. Hsu, R.W. Kadel, W. Krenz, J. Li, Q.Z. Li, M. Lu, D. Luckey, C.M. Ma, D.A. Ma, G.G.G. Massaro, T. Matsuda, H. Newman, M. Pohl, F.P. Poschmann, J.P. Revol, M. Rohde, H. Rykaczewski, K. Sinram, H.W. Tang, L.G. Tang, S.C.C. Ting, K.L. Tung, F. Vannucci, X.R. Wang, P.S. Wei, M. White, G.H. Wu, T.W. Wu, J.P. Xi, P.C. Yang, C.C. Yu, X.H. Yu, N.L. Zhang and R.Y. Zhu, Physics with high energy electron–positron colliding beams with the MARK J detector 63 (1980) 337
MARK J Collaboration, B. Adeva, D.P. Barber, U. Becker, J. Berdugo, A. Böhm, J.G. Branson, J.D. Burger, M. Capell, M. Cerrada, H.S. Chen, M. Chen, M.L. Chen, M.Y. Chen, Y.S. Chu, R. Clare, E. Deffur, M. Demarteau, P. Duinker, H.S. Fesefeldt, D. Fong, M. Fukushima, R.D. Han, D. Harting, T. Hebbeker, G. Herten, M.C. Ho, M. Hussain, M.M. Ilyas, D.Z. Jiang, W. Krenz, P. Kuijer,

Q.Z. Li, D. Luckey, E.J. Luit, C. Mana, M.A. Marquina, G.G.G. Massaro, R. Mount, K. Nadeem, H. Newman, M. Pohl, F.P. Poschmann, R.R. Rau, S. Rodriguez, M. Rohde, J.A. Rubio, H. Rykaczewski, J. Salicio, I. Schulz, H. Stone, G.M. Swider, H.W. Tang, D. Teuchert, S.C.C. Ting, K.L. Tung, M.Q. Wang, M. White, H.G. Wu, S.X. Wu, B. Wyslouch, B.X. Yang, C.C. Chang, B. Zhou, R.Y. Zhu and Y.C. Zhu, A summary of experimental results from MARK J: high energy e^+e^- collisions at PETRA 109 (1984) 131
Marmo, G., *see* G. Morandi 188 (1990) 147
Marquina, M.A., *see* MARK J Collaboration 109 (1984) 131
Marsden, J.E. and F.J. Tipler, Maximal hypersurfaces and foliations of constant mean curvature in general relativity 66 (1980) 109
Marsden, J.E., *see* J. Isenberg 89 (1982) 179
Marsden, J.E., *see* D.D. Holm 123 (1985) 1
Marsden, J.E., *see* J.C. Simo 193 (1990) 279
Marshak, R.E., A preon model of quarks and leptons 137 (1986) 73
Martens, P.C.H., Applications of non-linear methods in astronomy 115 (1984) 315
Martin, A., *see* H. Grosse 60 (1980) 341
Martin, A. and M. Jacob (editors), Essays in mathematical physics, in memoriam V. Glaser 134 (1986) 273
Martin, A. and M. Jacob, Editorial 134 (1986) 277
Martin, A., V. Glaser's results on the wave function at the origin and the semi-classical limit 134 (1986) 305
Martin, T.P., Alkali halide clusters and microcrystals 95 (1983) 167
Martinelli, F., *see* G. Jona-Lasinio 77 (1981) 313
Martinez, M., *see* M. Chen 159 (1988) 201
Martinson, I. and A. Gaupp, Atomic physics with ion accelerators – beam-foil spectroscopy 15 (1974) 113
Martorell, J., *see* O. Bohigas 51 (1979) 267
Marx, R., Calorimetric studies of phase transitions in two-dimensional physisorbed films 125 (1985) 1
Mashkevich, O.L., *see* Yu.G. Gurevich 181 (1989) 327
Massaro, G.G.G., *see* MARK J Collaboration 63 (1980) 337
Massaro, G.G.G., *see* MARK J Collaboration 109 (1984) 131
Mathiot, J.-F., Electromagnetic meson-exchange currents at the nucleon mass scale 173 (1989) 63
Matsuda, T., *see* MARK J Collaboration 63 (1980) 337
Mattig, P., *see* R.J. Cashmore 122 (1985) 275
Mättig, P., The structure of jets in e^+e^- collisions 177 (1989) 141
Matyushkin, E.V., *see* V.V. Eremenko 132 (1986) 55
Mauger, A. and C. Godart, The magnetic, optical, and transport properties of representatives of a class of magnetic semiconductors: the europium chalcogenides 141 (1986) 51
Mavrin, B.N., *see* V.N. Denisov 151 (1987) 1
Maximon, L.C., A. de Miniac, T. Aniel and E. Ganz, Tagged photons. An analysis of the Bremsstrahlung cross section 147 (1987) 189
Mayle, R.W., *see* J.R. Wilson 163 (1988) 63
McBrierty, V.J. and D.C. Douglass, Nuclear magnetic resonance of solid polymers 63 (1980) 61
McCarthy, I.E. and E. Weigold, (e, 2e) spectroscopy 27 (1976) 275
McCauley, J.L., Introduction to multifractals in dynamical systems theory and fully developed fluid turbulence 189 (1990) 225
McCoy, B.M. and T.T. Wu, Indeterminate-mass particles 49 (1979) 193

McCullen, J.D., *see* M.O. Scully 43 (1978) 485
McCusker, C.B.A., Hadronic interactions and cosmic radiation at energies above 10^5 GeV 20 (1975) 229
McDaniel, E.W. and L.A. Viehland, The transport of slow ions in gases: Experiment, theory, and applications 110 (1984) 333
McDonald, S.W., Phase-space representations of wave equations with applications to the eikonal approximation for short-wavelength waves 158 (1988) 337
McDowell, M.R.C., *see* B.H. Bransden 30 (1977) 207
McDowell, M.R.C., *see* B.H. Bransden 46 (1978) 249
McIver, J.K., *see* W. Becker 154 (1987) 205
McKellar, B.H.J., *see* R.D.C. Miller 106 (1984) 169
McKenzie, D.S., Polymers and scaling 27 (1976) 35
McKoy, V., *see* R.R. Lucchese 131 (1986) 147
McLerran, L., Physical conditions that might be achieved in ultra-relativistic heavy ion collisions 88 (1982) 379
McVoy, K.W., *see* W.A. Friedman 77 (1981) 47
McVoy, K.W. and X.T. Tang, Pre-equilibrium nuclear reactions: The overlapping-doorway model for multi-step compound processes 94 (1983) 139
McWhirter, R.W.P., Data needs, priorities and accuracies for plasma spectroscopy 37 (1978) 165
Meadows, A.J., The atmospheres of the Earth and the terrestrial planets: their origin and evolution 5 (1972) 197
Mehran, F. and K.W.H. Stevens, Electron spin resonance of impurities in magnetic insulators 85 (1982) 123
Meier, F., *see* J.A.A.J. Perenboom 78 (1981) 173
Meierovich, B.E., Electromagnetic collapse. Equilibrium of a dense pinch 92 (1982) 83
Meierovich, B.E., Electromagnetic collapse. Problems of stability, emission of radiation and evolution of a dense pinch 104 (1984) 259
Meinke, R., *see* UA5 Collaboration 154 (1987) 247
Meiss, J.D., *see* R.D. Hazeltine 121 (1985) 1
Meissner, U.-G., Low-energy hadron physics from effective chiral Lagrangians with vector mesons 161 (1988) 213
Mekjian, A. and L. Zamick, Short range and long range schematic interactions, their implications for giant resonances, polarization charges and other properties of nuclei 95 (1983) 321
Mekjian, A.Z., *see* S. Das Gupta 72 (1981) 131
Meledin, G.V., *see* V.M. Budnev 15 (1975) 181
Melissinos, A.C. and S.L. Olsen, Physics (and technique) of gas jet experiments 17 (1975) 77
Mello, P.A., *see* W.A. Friedman 77 (1981) 47
Melone, S., *see* R. Caciuffo 152 (1987) 1
Melott, A.L., The topology of large-scale structure in the universe 193 (1990) 1
Menchaca-Rocha, A., *see* N. Anyas-Weiss 12 (1974) 201
Mendes France, M., Folding paper and thermodynamics 103 (1984) 161
Mermaz, M.C., *see* C.K. Gelbke 42 (1978) 311
Mermaz, M.C., *see* T. Tamura 65 (1980) 345
Mészáros, P., *see* G.G. Pavlov 182 (1989) 187
Metag, V., D. Habs and H.J. Specht, Spectroscopic properties of fission isomers 65 (1980) 1
Metag, V., *see* W. Cassing 188 (1990) 363
Meurice, Y., *see* D. Amati 162 (1988) 169
Meyer, R.A., *see* K. Heyde 102 (1983) 291
Meyer-ter-Vehn, J., Unnatural parity states in nuclei and pion condensation 74 (1981) 323

Migdal, A.A., Loop equations and $1/N$ expansion 102 (1983) 199
Migdal, A.B., E.E. Saperstein, M.A. Troitsky and D.N. Voskresensky, Pion degrees of freedom in nuclear matter 192 (1990) 177
Mikhailov, A.S., Selected topics in fluctuational kinetics of reactions 184 (1989) 307
Millener, D.J., *see* N. Anyas-Weiss 12 (1974) 201
Millener, D.J., *see* C.B. Dover 184 (1989) 1
Miller, G.A., B.M.K. Nefkens and I. Šlaus, Charge symmetry, quarks and mesons 194 (1990) 1
Miller, R.D.C. and B.H.J. McKellar, Effective field theory and weak non-leptonic interactions 106 (1984) 169
Mills, D.L., *see* A.A. Abrikosov 194 (1990) 239
Milonni, P.W., Semiclassical and quantum-electrodynamical approaches in nonrelativistic radiation theory 25 (1976) 1
Milonni, P.W., *see* P.L. Knight 66 (1980) 21
Milonni, P.W., *see* J.R. Ackerhalt 128 (1985) 205
Minkowski, P., *see* H. Fritzsch 73 (1981) 67
Minogin, V.G., *see* V.S. Letokhov 73 (1981) 1
Miranda, L.C.M., *see* R. Luzzi 43 (1978) 423
Miranda, L.C.M., *see* H. Vargas 161 (1988) 43
Missimer, J. and L.M. Simons, The neutral weak current in muonic atoms 118 (1985) 179
Mitchell, G.E., *see* E.G. Bilpuch 28 (1976) 145
Mitchell, G.E., E.G. Bilpuch, J.F. Shriner Jr. and A.M. Lane, Amplitude correlations in nuclear resonance spectroscopy 117 (1985) 1
Mitchell, J.B.A., The dissociative recombination of molecular ions 186 (1990) 215
Mitra, T.K., A. Chatterjee and S. Mukhopadhyay, Polarons 153 (1987) 91
Mizutani, T., *see* M.P. Locher 46 (1978) 43
Möbius, K., M. Plato and W. Lubitz, Radicals in solution studied by ENDOR and TRIPLE resonance spectroscopy 87 (1982) 171
Mogilevsky, M.A., Mechanisms of deformation under shock loading 97 (1983) 357
Möhl, D., G. Petrucci, L. Thorndahl and S. van der Meer, Physics and technique of stochastic cooling 58 (1980) 73
Moi, L., *see* A. Kopystyńska 92 (1982) 135
Moiseiwitsch, B.L., Scattering of atomic particles at relativistic energies 118 (1985) 133
Molinari, A., *see* R. Chrien 64 (1980) 249
Montague, B.W., Polarized beams in high energy storage rings 113 (1984) 1
Montanet, L., G.C. Rossi and G. Veneziano, Baryonium physics 63 (1980) 149
Montanet, L., *see* G. Bellini 83 (1982) 1
Montroll, E.W., *see* F.T. Hioe 43 (1978) 305
Mookerjee, A., *see* D. Chowdhury 114 (1984) 1
Moraal, H., Quantum kinetic theory of polyatomic gases 17 (1975) 225
Morán-López, J.L., *see* M.C. Cadeville 153 (1987) 331
Morandi, G., *see* H. Keiter 109 (1984) 227
Morandi, G., C. Ferrario, G. Lo Vecchio, G. Marmo and C. Rubano, The inverse problem in the calculus of variations and the geometry of the tangent bundle 188 (1990) 147
Moreau, J., *see* M. Waroquier 148 (1987) 249
Mork, K., *see* P. Papatzacos 21 (1975) 81
Morley, J.G., New types of reinforced composite materials 28 (1976) 245
Morley, P.D. and M.B. Kislinger, Relativistic many-body theory, quantum chromodynamics and neutron stars/supernova 51 (1979) 63
Morpurgo, G., *see* M. Marinelli 85 (1982) 161

Mosel, U., *see* W. Cassing 188 (1990) 363
Moseley, J.T., *see* R.J. Higgins 110 (1984) 265
Moses, J.D., *see* E.G. Bilpuch 28 (1976) 145
Moshe, M., Recent developments in Reggeon field theory 37 (1978) 255
Moss, D., Magnetic fields in stars 140 (1986) 1
Mount, R., *see* MARK J Collaboration 109 (1984) 131
Moya de Guerra, E., Rotational nuclear models and electron scattering 138 (1986) 293
Mückenheim, W., A review of extended probabilities 133 (1986) 337
Mueller, A.H., Perturbative QCD at high energies 73 (1981) 237
Mugnai, D., *see* A. Ranfagni 108 (1984) 165
Muhr, J., *see* H. Paul 135 (1986) 47
Mukamel, S., Collisional broadening of spectral line shapes in two-photon and multiphoton processes 93 (1982) 1
Mukherjee, D., *see* I. Lindgren 151 (1987) 93
Mukherjee, S.C., *see* D. Basu 42 (1978) 145
Mukhopadhyay, N.C., Nuclear muon capture 30 (1977) 1
Mukhopadhyay, S., *see* T.K. Mitra 153 (1987) 91
Mulders, P.J., Modifications of nucleons in nuclei and other consequences of the quark substructure 185 (1990) 83
Mulkens, H., *see* UA5 Collaboration 154 (1987) 247
Müller, A., *see* U. Brosa 197 (1990) 167
Müller, B., *see* M. Soffel 85 (1982) 51
Müller, B., *see* G. Plunien 134 (1986) 87
Müller, B., *see* P. Koch 142 (1986) 167
Müller, Th., *see* UA5 Collaboration 154 (1987) 247
Müller-Warmuth, W. and H. Eckert, Nuclear magnetic resonance and Mossbauer spectroscopy of glasses 88 (1982) 91
Mulser, P., R. Sigel and S. Witkowski, Plasma production by laser 6 (1973) 187
Munday, D.J., *see* UA5 Collaboration 154 (1987) 247
Munn, R.W., *see* G.G. Roberts 60 (1980) 59
Muramatsu, A. and W. Hanke, Theory of elementary excitations and the metal–insulator transition on semiconductor surfaces 113 (1984) 97
Murray, J.D., P.K. Maini and R.T. Tranquillo, Mechanochemical models for generating biological pattern and form in development 171 (1988) 59
Musher, S.L., *see* V.E. Zakharov 129 (1985) 285
Musset, P. and J.-P. Vialle, Neutrino physics with Gargamelle 39 (1978) 1
Myra, E.S., Neutrino transport in stellar collapse 163 (1988) 127

Nadal, J.P., *see* J. Vannimenus 103 (1984) 47
Nadeem, K., *see* MARK J Collaboration 109 (1984) 131
Nakamura, H., *see* A. Ohsaki 187 (1990) 1
Nakayama, K., *see* S. Krewald 161 (1988) 103
Nambu, Y., Magnetic and electric confinement of quarks 23 (1976) 250
Nambu, Y., Concluding remarks 104 (1984) 237
Nanopoulos, D.V. and A. Savoy-Navarro (editors), Supersymmetry confronting experiment 105 (1984) 1
Nanopoulos, D.V., Supersymmetric Grand Unified Theories 105 (1984) 71
Nanopoulos, D.V., *see* A.B. Lahanas 145 (1987) 1
Narasimhan, K.S.V.S., *see* S.M. Alladin 92 (1982) 339

Narison, S., Techniques of dimensional regularization and the two-point functions of QCD and QED 84 (1982) 263
Narlikar, J.V. and T. Padmanabhan, Quantum cosmology via path integrals 100 (1983) 151
Naroska, B., e^+e^- physics with the JADE detector at PETRA 148 (1987) 67
Nasonov, N.N., *see* F.G. Bass 189 (1990) 165
Nathan, O., *see* D.R. Bes 34 (1977) 1
Nauenberg, M. and D. Scalapino, Scaling at a bifurcation point 67 (1980) 177
Nauenberg, M., The formation of fractal objects 103 (1984) 173
Nefkens, B.M.K., *see* G.A. Miller 194 (1990) 1
Nel, S.D., *see* G.F.R. Ellis 124 (1985) 315
Nelson, B., *see* C. DeWitt-Morette 50 (1979) 255
Nelson, C.A., *see* O.W. Greenberg 32 (1977) 69
Nelson, D.R., Superfluidity and the two-dimensional *XY* model 49 (1979) 255
Nelson, P., Lectures on strings and moduli space 149 (1987) 337
Neppiras, E.A., Acoustic cavitation 61 (1980) 159
Nesterov, M.M. and N.A. Tarasov, Semiclassical approach to the description of nuclear reactions with fast particles 185 (1990) 171
Neudatchin, V.G., *see* R.A. Eramzhyan 136 (1986) 229
Neveu, A., *see* J.L. Gervais 23 (1976) 237
Neveu, A., *see* J.L. Gervais 23 (1976) 240
Neveu, A., Semiclassical quantization methods in field theory 23 (1976) 265
Neveu, A., *see* J.-L. Gervais 67 (1980) 151
Neveu, A., Random surfaces and the quantum Liouville theory 103 (1984) 235
Newman, E.T., *see* M. Ko 71 (1981) 51
Newman, H., *see* MARK J Collaboration 63 (1980) 337
Newman, H., *see* MARK J Collaboration 109 (1984) 131
Niehaus, A., Spontaneous electron emission from slow atomic collisions 186 (1990) 149
Niemi, A.J. and G.W. Semenoff, Fermion number fractionization in quantum field theory 135 (1986) 99
Niemi, A.J., Pedagogical introduction to BRST 184 (1989) 147
Nienhuis, G., Impressed by light: Mechanical action of radiation on atomic motion 138 (1986) 151
Niita, K., *see* W. Cassing 188 (1990) 363
Nikitin, Yu.P., *see* V.M. Emel'yanov 143 (1986) 1
Nilles, H.P., Supersymmetry, supergravity and particle physics 110 (1984) 1
Nilsson, B.E.W., *see* M.J. Duff 130 (1986) 1
Nilsson, B.S., *see* D.R. Bes 16 (1975) 1
Nilsson, B.S., *see* R.A. Broglia 29 (1977) 291
Nilsson, S.G., *see* I. Ragnarsson 45 (1978) 1
Nimtz, G., Recombination in narrow-gap semiconductors 63 (1980) 265
Nishizaki, S., *see* S. Drożdż 197 (1990) 1
Niskanen, J.A., *see* S.-O. Bäckman 124 (1985) 1
Nissani, N., SL(2, C) gauge theory of gravitation: conservation laws 109 (1984) 95
Noble, J.V., Applications of progenitor sum rules in nuclear theory 40 (1978) 241
Nomoto, K. and M. Hashimoto, Presupernova evolution of massive stars 163 (1988) 13
Norman, C.A. and D. ter Haar, Plasma turbulent reactors: an astrophysical paradigm 17 (1975) 307
Novikov, V.A., L.B. Okun, M.A. Shifman, A.I. Vainshtein, M.B. Voloshin and V.I. Zakharov, Charmonium and gluons 41 (1978) 1
Novikov, V.A., M.A. Shifman, A.I. Vainshtein and V.I. Zakharov, Two-dimensional sigma models: modelling non-perturbative effects in quantum chromodynamics 116 (1984) 103

Nyman, E.M., Bremsstrahlung in nucleon–nucleon collisions 9 (1974) 179

O'Connell, R.F., *see* M. Hillery 106 (1984) 121
Odian, A., *see* UA5 Collaboration 154 (1987) 247
Ogle, W., *see* J.P. Boisson 26 (1976) 99
Ogurtsova, L.A., *see* V.V. Eremenko 166 (1988) 353
Ohsaki, A. and H. Nakamura, Hyperspherical coordinate approach to atom–diatom chemical reactions in the sudden and adiabatic approximations 187 (1990) 1
Okun, L.B., *see* V.A. Novikov 41 (1978) 1
Olive, D., *see* V. Alessandrini 1 (1971) 269
Olive, D., Magnetic monopoles 49 (1979) 165
Olive, K.A., Inflation 190 (1990) 307
Olmer, C., *see* C.K. Gelbke 42 (1978) 311
Olsen, S.L., *see* A.C. Melissinos 17 (1975) 77
Olshanetsky, M.A. and A.M. Perelomov, Classical integrable finite-dimensional systems related to Lie algebras 71 (1981) 313
Olshanetsky, M.A. and A.M. Perelomov, Quantum integrable systems related to Lie algebras 94 (1983) 313
Omnès, R., The possible role of elementary particle physics in cosmology 3 (1972) 1
Oset, E., H. Toki and W. Weise, Pionic modes of excitation in nuclei 83 (1982) 281
Oset, E., P. Fernández de Córdoba, L.L. Salcedo and R. Brockmann, Decay modes of sigma and lambda hypernuclei 188 (1990) 79
Ovens, J.E.V., *see* UA5 Collaboration 154 (1987) 247
Ovsiannikov, V.D., *see* N.L. Manakov 141 (1986) 319

Padmanabhan, T., *see* J.V. Narlikar 100 (1983) 151
Padmanabhan, T., Statistical mechanics of gravitating systems 188 (1990) 285
Pagels, H., Departures from chiral symmetry 16 (1975) 219
Pagels, H., *see* W. Marciano 36 (1978) 137
Paladin, G. and A. Vulpiani, Anomalous scaling laws in multifractal objects 156 (1987) 147
Palchik, M.Ya., *see* E.S. Fradkin 44 (1978) 249
Pals, J.A., K. Weiss, P.M.T.M. van Attekum, R.E. Horstman and J. Wolter, Non-equilibrium superconductivity in homogeneous thin films 89 (1982) 323
Panagiotou, A.D., *see* N. Anyas-Weiss 12 (1974) 201
Papanicolaou, N., Infrared problems in quantum electrodynamics 24 (1976) 229
Papatzacos, P. and K. Mork, Delbrück scattering 21 (1975) 81
Papini, G. and S.R. Valluri, Gravitons in Minkowski space-time. Interactions and results of astrophysical interest 33 (1977) 51
Papp, E., Quasiclassical approach to the virial theorem and to the evaluation of the ground-state energy 136 (1986) 103
Papp, E., Quasiclassical symmetry properties II 161 (1988) 171
Parisi, G., The Borel transform and the renormalization group 49 (1979) 215
Parisi, G., Mean field theory for spin glasses 67 (1980) 25
Parisi, G., The strategy for computing the hadronic mass spectrum 103 (1984) 203
Parisi, G., *see* C. Itzykson 184 (1989) 99
Parisi, G., Networks in immunology 184 (1989) 283
Parke, S.J., *see* M.L. Mangano 200 (1991) 301
Paschos, E.A. and U. Türke, Quark mixing and *CP* violation 178 (1989) 145

Pato, M.P. and M.S. Hussein, SAM revisited: absorptive uniform semiclassical approximation and application to heavy-ion elastic scattering 189 (1990) 127
Patton, C.E., Magnetic excitations in solids 103 (1984) 251
Paul, H. and J. Muhr, Review of experimental cross sections for K-shell ionization by light ions 135 (1986) 47
Paul, S.N., *see* B. Chakraborty 114 (1984) 181
Pauli, H.C., On the shell model and its application to the deformation energy of heavy nuclei 7 (1973) 35
Pavlov, G.G., Yu.A. Shibanov and P. Mészáros, Comptonization in strongly magnetized and nonmagnetized plasmas 182 (1989) 187
Pearson, R., First results from the Ising Monte Carlo processor 103 (1984) 185
Pease, R.S., Address of welcome 37 (1978) 56
Peccei, R.D., *see* T.W. Donnelly 50 (1979) 1
Peliti, L., Self-avoiding walks 103 (1984) 225
Peliti, L., Fluctuations in solid and hexatic membranes 184 (1989) 271
Penrose, R. and M.A.H. MacCallum, Twister theory: an approach to the quantisation of fields and space-time 6 (1973) 241
Perelomov, A.M., *see* M.A. Olshanetsky 71 (1981) 313
Perelomov, A.M., *see* M.A. Olshanetsky 94 (1983) 313
Perelomov, A.M., Chiral models: Geometrical aspects 146 (1987) 135
Perelomov, A.M., Supersymmetric chiral models: geometrical aspects 174 (1989) 229
Perenboom, J.A.A.J., P. Wyder and F. Meier, Electronic properties of small metallic particles 78 (1981) 173
Perepelkin, N.F., *see* H. de Kluiver 199 (1991) 281
Perez-y-Jorba, J.P. and F.M. Renard, The physics of electron–positron colliding beams 31 (1977) 1
Perl, M.L., *see* G.J. Feldman 19 (1975) 233
Perl, M.L., *see* G.J. Feldman 33 (1977) 285
Peshkin, M., The Aharonov–Bohm effect: why it cannot be eliminated from quantum mechanics 80 (1981) 375
Peterman, A., *see* B.E. Lautrup 3 (1972) 193
Peterman, A., Renormalization group and the deep structure of the proton 53 (1979) 157
Petersen, J.L., Meson–meson scattering 2 (1971) 155
Petronzio, R., Hadron masses in lattice QCD: A progress report 103 (1984) 213
Petrucci, G., *see* D. Möhl 58 (1980) 73
Pfeifer, H., Surface phenomena investigated by nuclear magnetic resonance 26 (1976) 293
Picasso, E., *see* F. Combley 14 (1974) 1
Picasso, E., *see* F. Combley 68 (1981) 93
Piepenbring, R., *see* J.P. Boisson 26 (1976) 99
Pietronero, L., Theoretical concepts for fractal growth 184 (1989) 273
Piguet, O. and A. Rouet, Symmetries in perturbative quantum field theory 76 (1981) 1
Pikel'ner, S.B., *see* S.A. Kaplan 15 (1974) 1
Pimpale, A., *see* M. Razavy 168 (1988) 305
Pinkston, W.T., *see* J.M. Bang 125 (1985) 253
Piran, T., *see* J.M. Bardeen 96 (1983) 205
Plato, M., *see* K. Möbius 87 (1982) 171
Plunien, G., B. Müller and W. Greiner, The Casimir effect 134 (1986) 87
Podobedov, V.B., *see* V.N. Denisov 151 (1987) 1
Pogorelov, Yu.G., *see* M.A. Ivanov 153 (1987) 209
Pohl, M., *see* MARK J Collaboration 63 (1980) 337

Pohl, M., *see* MARK J Collaboration 109 (1984) 131
Pokatilov, E.P., *see* V.M. Fomin 158 (1988) 205
Polikarpov, M.I., *see* A.M. Badalyan 82 (1982) 31
Poling, R.A., *see* E.H. Thorndike 157 (1988) 183
Politzer, H.D., Asymptotic freedom: an approach to strong interactions 14 (1974) 129
Polkinghorne, J.C., *see* P.V. Landshoff 5 (1972) 1
Pollarolo, G., *see* R.A. Broglia 48 (1978) 351
Pomeau, Y. and P. Résibois, Time dependent correlation functions and mode–mode coupling theories 19 (1975) 63
Pomeau, Y., *see* C. Itzykson 103 (1984) 1
Pomponiu, C., *see* S. Ciulli 17 (1975) 133
Pondrom, L.G., Hyperon experiments at Fermilab 122 (1985) 57
Pong, W.S., *see* M.R. Anastasio 100 (1983) 327
Pontecorvo, B., *see* S.M. Bilenky 41 (1978) 225
Pope, C.N., *see* M.J. Duff 130 (1986) 1
Popp, H.-P., The radiation of atomic negative ions 16 (1975) 169
Posbergh, T.A., *see* J.C. Simo 193 (1990) 279
Poschmann, F.P., *see* MARK J Collaboration 63 (1980) 337
Poschmann, F.P., *see* MARK J Collaboration 109 (1984) 131
Poth, H., Electron cooling: theory, experiment, application 196 (1990) 135
Poulis, N.J., *see* W.Th. Wenckebach 14 (1974) 181
Poves, A. and A. Zuker, Theoretical spectroscopy and the fp shell 70 (1981) 235
Poves, A. and A. Zuker, Quasiconfigurations and the theory of effective interactions 71 (1981) 141
Prakash, M., *see* R. Freifelder 133 (1986) 315
Pratt, R.H., *see* P.P. Kane 140 (1986) 75
Prentice, J.D., *see* G. Bellini 83 (1982) 1
Presnyakov, L.P., *see* R.K. Janev 70 (1981) 1
Preston, R.D., X-ray analysis and the structure of the components of plant cell walls 21 (1975) 183
Prigodin, V.N., *see* Yu.A. Firsov 126 (1985) 245
Proudfoot, J., *see* R.J. Cashmore 122 (1985) 275
Pruisken, A.M.M., Delocalization in the quantum Hall regime 184 (1989) 213
Putterman, S., The phenomenology of vortices in superfluid helium 4 (1972) 67
Putterman, S.J. and P.H. Roberts, Fokker–Planck equation for interacting waves. Dispersion law renormalization and wave turbulence 168 (1988) 209
Putzer, A., *see* W.M. Geist 197 (1990) 263

Qadir, A., Penrose graphs 39 (1978) 131
Quigg, C. and J.L. Rosner, Quantum mechanics with applications to quarkonium 56 (1979) 167

Raadu, M.A., The physics of double layers and their role in astrophysics 178 (1989) 25
Radhi, R., *see* B.A. Brown 101 (1983) 313
Rafelski, J., L.P. Fulcher and A. Klein, Fermions and bosons interacting with arbitrarily strong external fields 38 (1978) 227
Rafelski, J., Formation and observation of the quark–gluon plasma 88 (1982) 331
Rafelski, J., *see* J.W. Clark 123 (1985) 215
Rafelski, J., *see* P. Koch 142 (1986) 167
Raffelt, G.G., Astrophysical methods to constrain axions and other novel particle phenomena 198 (1990) 1
Ragnarsson, I., S.G. Nilsson and R.K. Sheline, Shell structure in nuclei 45 (1978) 1

Rahman, H.U., *see* P.K. Shukla 105 (1984) 227
Rainer, D., *see* J.W. Serene 101 (1983) 221
Rajagopal, A.K., *see* U. Gupta 87 (1982) 259
Rajaraman, R., Some non-perturbative semi-classical methods in quantum field theory (a pedagogical review) 21 (1975) 227
Ramani, A., B. Grammaticos and T. Bountis, The Painlevé property and singularity analysis of integrable and non-integrable systems 180 (1989) 159
Rammal, R., Harmonic analysis in fractal spaces: Random walk statistics and spectrum of the Schrödinger equation 103 (1984) 151
Ramsey, N.F., Dipole moments and spin rotations of the neutron 43 (1978) 409
Ranfagni, A., D. Mugnai and R. Englman, Semiclassical treatments of non-radiative processes 108 (1984) 165
Rao, N.N., *see* P.K. Shukla 138 (1986) 1
Raoult, G.M., Hertzian optics 72 (1981) 57
Rapaport, J., An optical model analysis of neutron scattering 87 (1982) 25
Rapoport, L.P., *see* N.L. Manakov 141 (1986) 319
Ratiu, T., *see* D.D. Holm 123 (1985) 1
Rau, A.R.P., The Wannier theory for two electrons escaping from a positive ion 110 (1984) 369
Rau, R.R., *see* H. Hahn 29 (1977) 85
Rau, R.R., *see* MARK J Collaboration 109 (1984) 131
Ravn, H.L., Experiments with intense secondary beams of radioactive ions 54 (1979) 201
Rawitscher, G., *see* N. Austern 154 (1987) 125
Razavy, M. and A. Pimpale, Quantum tunneling: a general study in multi-dimensional potential barriers with and without dissipative coupling 168 (1988) 305
Rebbi, C., Dual models and relativistic quantum strings 12 (1974) 1
Rebbi, C., Monte Carlo simulations of lattice gauge theories 67 (1980) 55
Rebbi, C., *see* M. Creutz 95 (1983) 201
Rebbi, C., Numerical calculations in quantum field theory 137 (1986) 63
Regge, T., On broken symmetries and gravity 137 (1986) 31
Register, D.F., *see* S. Trajmar 97 (1983) 219
Rehm, K.E., *see* W.E. Frahn 37 (1978) 1
Reinders, L.J., H. Rubinstein and S. Yazaki, Hadron properties from QCD sum rules 127 (1985) 1
Reines, F. and J. VanderVelde, Observation of SN1987A by neutrino light 163 (1988) 137
Reinhardt, H., *see* R. Balian 131 (1986) 1
Renard, F.M., *see* J.P. Perez-y-Jorba 31 (1977) 1
Renard, F.M., *see* N.S. Craigie 99 (1983) 69
Renard, F.M., *see* C. Bourrely 177 (1989) 319
Renieri, A., *see* F. Ciocci 141 (1986) 1
Renzini, A., *see* I. Iben Jr. 105 (1984) 329
Repellin, J.-P., *see* M. Bourquin 114 (1984) 99
Résibois, P., *see* Y. Pomeau 19 (1975) 63
Restuccia, A. and J.G. Taylor, Light-cone gauge analysis of superstrings 174 (1989) 283
Reucroft, S., *see* G. Bellini 83 (1982) 1
Reuss, J., *see* C. Liedenbaum 178 (1989) 1
Revol, J.P., *see* MARK J Collaboration 63 (1980) 337
Reya, E., Perturbative quantum chromodynamics 69 (1981) 195
Rho, M., *see* M. Ericson 5 (1972) 57
Rich, J., D. Lloyd Owen and M. Spiro, Experimental particle physics without accelerators 151 (1987) 239

Richard, J.L., *see* J.L. Madore 49 (1979) 113
Riera, A., *see* A. Macías 90 (1982) 299
Ripka, G., A practical guide to the hypernetted chain method applied to Fermi and Bose systems 56 (1979) 1
Riska, D.O., Exchange currents 181 (1989) 207
Rizzo, T.G., *see* J.L. Hewett 183 (1989) 193
Robert, J.B. and L. Wiesenfeld, Magnetic anisotropic interactions of nuclei in condensed matter 86 (1982) 363
Roberts, G.G., N. Apsley and R.W. Munn, Temperature dependent electronic conduction in semiconductors 60 (1980) 59
Roberts, P.H., *see* S.J. Putterman 168 (1988) 209
Roberts, R.G., *see* D.W. Duke 120 (1985) 275
Robinson, F.N.H., Electromagnetic stress and momentum in matter 16 (1975) 313
Robinson, J.M., Valence transitions and intermediate valence states in rare earth and actinide materials 51 (1979) 1
Robinson, T.R., The heating of the high latitude ionosphere by high power radio waves 179 (1989) 79
Roddier, F., Interferometric imaging in optical astronomy 170 (1988) 97
Rodriguez, R., *see* Ph. Combe 77 (1981) 221
Rodriguez, S., *see* MARK J Collaboration 109 (1984) 131
Rogers, A.J., Distributed optical-fibre sensors for the measurement of pressure, strain and temperature 169 (1988) 99
Rogers, R.R. and G. Vali, Recent developments in meteorological physics 48 (1978) 65
Rogovin, D. and M. Scully, Superconductivity and macroscopic quantum phenomena 25 (1976) 175
Rohde, M., *see* MARK J Collaboration 63 (1980) 337
Rohde, M., *see* MARK J Collaboration 109 (1984) 131
Roos, M., *see* J. Maalampi 186 (1990) 53
Rösel, F., *see* G. Baur 111 (1984) 333
Rosenberg, M., *see* UA5 Collaboration 154 (1987) 247
Rosenzweig, C., *see* G.F. Chew 41 (1978) 263
Rosina, M., *see* L. Fonda 158 (1988) 159
Rosner, J.L., The classification and decays of resonant particles 11 (1974) 189
Rosner, J.L., *see* C. Quigg 56 (1979) 167
Rosner, J.L., *see* L.J. Hall 125 (1985) 103
Rosquist, K. and R.T. Jantzen, Unified regularization of Bianchi cosmology 166 (1988) 89
Rossi, G.C., *see* L. Montanet 63 (1980) 149
Rossi, G.C., *see* D. Amati 162 (1988) 169
Rossi, P., Exact results in the theory of non-Abelian magnetic monopoles 86 (1982) 317
Rostokin, V., *see* R.A. Broglia 11 (1974) 1
Rostokin, V.I., *see* G.E. Brown 50 (1979) 227
Rottman, C. and M. Wortis, Statistical mechanics of equilibrium crystal shapes: Interfacial phase diagrams and phase transitions 103 (1984) 59
Roueff, E., *see* J. Lequeux 200 (1991) 241
Rouet, A., *see* O. Piguet 76 (1981) 1
Rowe, E.G.P. and G.T. Rowe, The classical equations of motion for a spinning point particle with charge and magnetic moment 149 (1987) 287
Rowe, G.T., *see* E.G.P. Rowe 149 (1987) 287
Roy, D.P., *see* S.N. Ganguli 67 (1980) 201
Roy, S.C., *see* P.P. Kane 140 (1986) 75

Roy, S.M., High energy theorems for strong interactions and their comparison with experimental data 5 (1972) 125
Rozental, I.L., *see* V.M. Emel'yanov 143 (1986) 1
Rubano, C., *see* G. Morandi 188 (1990) 147
Rubenchik, A.M., *see* V.E. Zakharov 129 (1985) 285
Rubenchik, A.M., *see* E.A. Kuznetsov 142 (1986) 103
Rubinstein, H., *see* L.J. Reinders 127 (1985) 1
Rubio, J.A., *see* MARK J Collaboration 109 (1984) 131
Ruckl, R., *see* R.J. Cashmore 122 (1985) 275
Rudakov, L.I. and V.N. Tsytovich, Strong Langmuir turbulence 40 (1978) 1
Rudenko, V.N., *see* V.B. Braginsky 46 (1978) 165
Ruelle, D., Conceptual problems of weak and strong turbulence 103 (1984) 81
Ruelle, D., *see* H. Epstein 184 (1989) 289
Ruijsenaars, S.N.M., *see* S.A. Fulling 152 (1987) 135
Rushbrooke, J.G. and B.R. Webber, High energy antiparticle–particle reaction differences and annihilations 44 (1978) 1
Rushbrooke, J.G., *see* UA5 Collaboration 154 (1987) 247
Russell, P.St.J., Optical volume holography 71 (1981) 209
Rustichelli, F., *see* R. Caciuffo 152 (1987) 1
Ryabenko, G.A., *see* A.P. Kazantsev 129 (1985) 75
Ryckebusch, J., *see* M. Waroquier 148 (1987) 249
Ryder, L.H., What can low-energy nuclear physics tell us about elementary particles and quarks? 34 (1977) 55
Rykaczewski, H., *see* MARK J Collaboration 63 (1980) 337
Rykaczewski, H., *see* MARK J Collaboration 109 (1984) 131
Rykaczewski, H., *see* R.J. Cashmore 122 (1985) 275
Ryndin, R.M., Electromagnetic properties of the Ω^--particle and the fine structure of Ω^--hyperonic atoms 134 (1986) 317
Ryskin, M.G., *see* L.V. Gribov 100 (1983) 1
Ryskin, M.G., *see* E.M. Levin 189 (1990) 267

Saarikko, H., *see* UA5 Collaboration 154 (1987) 247
Saarikko, T., *see* UA5 Collaboration 154 (1987) 247
Sabba-Stefănescu, I., *see* S. Ciulli 17 (1975) 133
Sack, Ch. and H. Schamel, Plasma expansion into vacuum. A hydrodynamic approach 156 (1987) 311
Sagnotti, A., Closed strings and their open-string descendants 184 (1989) 167
Sakharov, A.S., *see* S.V. Bulanov 186 (1990) 1
Sakita, B., *see* J.L. Gervais 23 (1976) 281
Salcedo, L.L., *see* E. Oset 188 (1990) 79
Saleur, H., Lattice models and conformal field theories 184 (1989) 177
Salicio, J., *see* MARK J Collaboration 109 (1984) 131
Salin, A., *see* Dž. Belkić 56 (1979) 279
Salvini, G. and A. Silverman, Physics with matter–antimatter colliders 171 (1988) 231
Samarskii, A.A., *see* T.S. Akhromeyeva 176 (1989) 189
Samson, J.A.R., Photoionization of atoms and molecules 28 (1976) 303
Samwer, K., Amorphisation in solid metallic systems 161 (1988) 1
Sandweiss, J., *see* G. Bellini 83 (1982) 1
Sanford, J.R., *see* G. Giacomelli 19 (1975) 169
Santos, N.O., *see* W.B. Bonnor 181 (1989) 269

Saperstein, E.E., *see* V.A. Khodel 92 (1982) 183
Saperstein, E.E., *see* A.B. Migdal 192 (1990) 177
Sardanashvily, G., *see* D. Ivanenko 94 (1983) 1
Sargent III, M., Spectroscopic techniques based on Lamb's laser theory 43 (1978) 223
Sargood, D.G., Charged particle reaction cross sections and nucleosynthesis 93 (1982) 61
Satchler, G.R., New giant resonances in nuclei. An interim review 14 (1974) 97
Satchler, G.R. and W.G. Love, Folding model potentials from realistic interactions for heavy-ion scattering 55 (1979) 183
Satchler, G.R., *see* L.C. Vaz 69 (1981) 373
Satchler, G.R., Heavy-ion scattering and reactions near the Coulomb barrier and "threshold anomalies" 199 (1991) 147
Satz, H., Critical behaviour in finite temperature QCD 88 (1982) 349
Sauvageau, J.E., *see* A.K. Jain 109 (1984) 309
Savoia, M., *see* K. Allaart 169 (1988) 209
Savoy-Navarro, A., *see* D.V. Nanopoulos 105 (1984) 1
Savoy-Navarro, A., Experimental tests of supersymmetry 105 (1984) 91
Sawatzky, G.A., *see* F. van der Woude 12 (1974) 335
Saxon, D.H., *see* R.J. Cashmore 122 (1985) 275
Sbitnev, V.I., *see* M.M. Agamalyan 168 (1988) 265
Scalapino, D., *see* M. Nauenberg 67 (1980) 177
Schaeffer, R., *see* J. Knoll 31 (1977) 159
Schamel, H., Electron holes, ion holes and double layers. Electrostatic phase space structures in theory and experiment 140 (1986) 161
Schamel, H., *see* Ch. Sack 156 (1987) 311
Scheck, F., Muon physics 44 (1978) 187
Schellekens, A.N., *see* W. Lerche 177 (1989) 1
Schenzle, A. and R.G. Brewer, Generalized two photon theory 43 (1978) 455
Schiller, D., *see* R.J. Cashmore 122 (1985) 275
Schindler, K. and J. Birn, Magnetospheric physics 47 (1978) 109
Schlögl, F., Stochastic measures in nonequilibrium thermodynamics 62 (1980) 267
Schlottmann, P., Some exact results for dilute mixed-valent and heavy-fermion systems 181 (1989) 1
Schlüter, P., G. Soff and W. Greiner, Pair creation by internal conversion 75 (1981) 327
Schmickler, H., *see* UA5 Collaboration 154 (1987) 247
Schmid, A., *see* S. Chakravarty 140 (1986) 193
Schmitz, R., Fluctuations in nonequilibrium fluids 171 (1988) 1
Schöberl, F.F., *see* W. Lucha 200 (1991) 127
Schoenes, J., Electronic transitions, crystal field effects and phonons in UO_2 63 (1980) 301
Schoenes, J., Electronic structure of uranium monochalcogenides and uranium monopnictides 66 (1980) 187
Schön, G. and A.D. Zaikin, Quantum coherent effects, phase transitions, and the dissipative dynamics of ultra small tunnel junctions 198 (1990) 237
Schotte, K.D., On the description of transport phenomena 46 (1978) 93
Schouten, J.A., Phase equilibria in binary systems at very high pressures 172 (1989) 33
Schramm, D.N. and J. W. Truran, New physics from Supernova 1987A 189 (1990) 89
Schramm, P., *see* H. Grabert 168 (1988) 115
Schröder, W.U., J.R. Birkelund, J.R. Huizenga, K.L. Wolf and V.E. Viola Jr., Mechanisms of very heavy-ion collisions: the $^{209}Bi + ^{136}Xe$ reaction at $E_{Lab} = 1130$ MeV 45 (1978) 301

Schroer, B., Classical aspects and fluctuation-behaviour of two dimensional models in statistical mechanics and many body physics 23 (1976) 314
Schuller, F. and W. Behmenburg, Perturbation of spectral lines by atomic interactions 12 (1974) 273
Schulman, L.S., A stochastic process with metastability and complex free energy 77 (1981) 359
Schulz, I., *see* MARK J Collaboration 109 (1984) 131
Schumaker, B.L., Quantum mechanical pure states with Gaussian wave functions 135 (1986) 317
Schürmann, B., W. Zwermann and R. Malfliet, Analytical treatment of high-energy nucleus–nucleus collisions 147 (1987) 1
Schütte, G., Quantum mechanical description of the intrinsic excitation of fissioning nuclei 80 (1981) 113
Schwarz, J.H., Dual resonance theory 8 (1973) 269
Schwarz, J.H., Superstring theory 89 (1982) 223
Schwesinger, B., H. Weigel, G. Holzwarth and A. Hayashi, The Skyrme soliton in pion, vector- and scalar-meson fields: πN-scattering and photoproduction 173 (1989) 173
Sciuto, S., Difficulties in fixing the gauge in non-Abelian gauge theories 49 (1979) 181
Scoppola, E., *see* G. Jona-Lasinio 77 (1981) 313
Scott, D.K., *see* N. Anyas-Weiss 12 (1974) 201
Scott, D.K., *see* C.K. Gelbke 42 (1978) 311
Scott, T.A., Solid and liquid nitrogen 27 (1976) 89
Scully, M., *see* D. Rogovin 25 (1976) 175
Scully, M.O., R. Shea and J.D. McCullen, State reduction in quantum mechanics: a calculational example 43 (1978) 485
Scully, M.O., *see* C.D. Cantrell 43 (1978) 499
Scully, M.O., *see* M. Hillery 106 (1984) 121
Seaman, L., *see* D.R. Curran 147 (1987) 253
Sears, V.F., Fundamental aspects of neutron optics 82 (1982) 1
Sears, V.F., Electromagnetic neutron–atom interactions 141 (1986) 281
Seidel, Chr., *see* Yu.A. Firsov 126 (1985) 245
Selke, W., The ANNNI model – theoretical analysis and experimental application 170 (1988) 213
Semenoff, G.W., *see* A.J. Niemi 135 (1986) 99
Seminozhenko, V.P., Kinetics of interacting quasiparticles in strong external fields 91 (1982) 103
Senjanović, P., *see* M. Blagojević 157 (1988) 233
Serbo, V.G., *see* V.M. Budnev 15 (1975) 181
Serene, J.W. and D. Rainer, The quasiclassical approach to superfluid ^{3}He 101 (1983) 221
Series, G.W., A semi-classical approach to radiation problems 43 (1978) 1
Sewell, G.L., Stability, equilibrium and metastability in statisical mechanics 57 (1980) 307
Shakin, C.M., *see* M.R. Anastasio 100 (1983) 327
Shapiro, I.S., The physics of nucleon–antinucleon systems 35 (1978) 129
Shapiro, J.A. and C.C. Taylor, The spacetime supersymmetric formulation of the string 191 (1990) 221
Sharma, C.S., Correlation energies in atoms 26 (1976) 1
Shea, R., *see* M.O. Scully 43 (1978) 485
Sheline, R.K., *see* I. Ragnarsson 45 (1978) 1
Shepelyansky, D.L., *see* G. Casati 154 (1987) 77
Sher, M., Electroweak Higgs potentials and vacuum stability 179 (1989) 273
Sherrington, D. and K. Wong, Random boolean networks for autoassociative memory 184 (1989) 293
Shibanov, Yu.A., *see* G.G. Pavlov 182 (1989) 187
Shiffmann, Y., Classification in bifurcation theory and reaction-diffusion systems 64 (1980) 87
Shifman, M.A., *see* V.A. Novikov 41 (1978) 1
Shifman, M.A., *see* V.A. Novikov 116 (1984) 103

Shih, M.-L., *see* J.R. Ackerhalt 128 (1985) 205
Shivamoggi, B.K., Magnetohydrodynamic theories of magnetic field reconnection 127 (1985) 99
Shockey, D.A., *see* D.R. Curran 147 (1987) 253
Shoda, K., Isospin effect in photoproton reaction on heavy nuclei 53 (1979) 341
Shpenik, O.B., *see* I.I. Fabrikant 159 (1988) 1
Shriner Jr., J.F., *see* G.E. Mitchell 117 (1985) 1
Shrivastava, K.N., Lattice dynamic effects in electron paramagnetic resonance 20 (1975) 137
Shrivastava, K.N. and K.P. Sinha, Magnetic superconductors: Model theories and experimental properties of rare-earth compounds 115 (1984) 93
Shrivastava, K.N., Magnetic resonance in high-temperature superconductors 200 (1991) 51
Shukla, P.K., M.Y. Yu, H.U. Rahman and K.H. Spatschek, Nonlinear convective motion in plasmas 105 (1984) 227
Shukla, P.K., N.N. Rao, M.Y. Yu and N.L. Tsintsadze, Relativistic nonlinear effects in plasmas 138 (1986) 1
Shuryak, E.V., Quantum chromodynamics and the theory of superdense matter 61 (1980) 71
Shuryak, E.V., Theory and phenomenology of the QCD vacuum 115 (1984) 151
Shvartsburg, A.B., Non-linear dynamics and geometrical properties of localized wave structures 83 (1982) 107
Shvartsburg, A.B., Resonant Joule phenomena in a magnetoplasma 125 (1985) 187
Shyam, R., *see* G. Baur 111 (1984) 333
Siegmann, H.C., Emission of polarized electrons from magnetic materials 17 (1975) 37
Sigel, R., *see* P. Mulser 6 (1973) 187
Siggia, E.D., The strong coupling limit of K.A.M. theory and the onset of turbulence 103 (1984) 87
Sigov, A.S., *see* V.R. Chechetkin 176 (1989) 1
Sikka, S.K., *see* B.K. Godwal 102 (1983) 121
Sil, N.C., *see* A.S. Ghosh 87 (1982) 313
Silberberg, R. and C.H. Tsao, Spallation processes and nuclear interaction products of cosmic rays 191 (1990) 351
Silin, V.P. and V.T. Tikhonchuk, Parametric plasma turbulence 135 (1986) 1
Silin, V.P., *see* V.Yu. Bychenkov 164 (1988) 119
Silverman, A., *see* G. Salvini 171 (1988) 231
Simo, J.C., T.A. Posbergh and J.E. Marsden, Stability of coupled rigid body and geometrically exact rods: block diagonalization and the energy–momentum method 193 (1990) 279
Simonov, Yu.A., *see* A.M. Badalyan 82 (1982) 31
Simons, L.M., *see* J. Missimer 118 (1985) 179
Singh, R.K., Many body interactions in binary ionic solids 85 (1982) 259
Singh, S., Statistical properties of single-mode and two-mode ring lasers 108 (1984) 217
Singh, Y. and S.K. Sinha, Semiclassical statistical mechanics of fluids 79 (1981) 213
Sinha, B., The optical potential and nuclear structure 20 (1975) 1
Sinha, K.P., *see* C. Sivaram 51 (1979) 111
Sinha, K.P., *see* K.N. Shrivastava 115 (1984) 93
Sinha, S.K., *see* Y. Singh 79 (1981) 213
Sinitsyn, Yu.A., *see* F.G. Bass 157 (1988) 63
Sinram, K., *see* MARK J Collaboration 63 (1980) 337
Sirlin, A., *see* M.A.B. Bég 88 (1982) 1
Sirugue, M., *see* Ph. Combe 77 (1981) 221
Sirugue-Collin, M., *see* Ph. Combe 77 (1981) 221
Sivaram, C. and K.P. Sinha, Strong spin-two interaction and general relativity 51 (1979) 111
Sivers, D., S.J. Brodsky and R. Blankenbecler, Large transverse momentum processes 23 (1976) 1

Sjöstrand, T., *see* B. Andersson 97 (1983) 31
Sklyarov, Yu.M., *see* A.I. Maimistov 191 (1990) 1
Slansky, R., High-energy hadron production and inclusive reactions 11 (1974) 99
Slansky, R., Group theory for unified model building 79 (1981) 1
Šlaus, I., Y. Akaishi and H. Tanaka, Neutron–neutron effective range parameters 173 (1989) 257
Šlaus, I., *see* G.A. Miller 194 (1990) 1
Sloan, T., G. Smadja and R. Voss, The quark structure of the nucleon from the CERN muon experiments 162 (1988) 45
Sluijter, F.W., *see* P.C. de Jagher 167 (1988) 177
Slutskin, A.A., *see* M.I. Kaganov 98 (1983) 189
Smadja, G., *see* T. Sloan 162 (1988) 45
Smirnov, B.M., The properties and the nature of ball lightning 152 (1987) 177
Smirnov, B.M., The properties of fractal clusters 188 (1990) 1
Smith, P.F. and J.D. Lewin, Dark matter detection 187 (1990) 203
Smith, R.A., *see* A.D. Jackson 86 (1982) 55
Snavely, M.K., *see* J.G. Grasselli 65 (1980) 231
Snegursky, A.V., *see* I.I. Fabrikant 159 (1988) 1
Sobel, M.I., *see* J.P. Bondorf 15 (1974) 83
Sobyanin, A.A., *see* V.L. Ginzburg 57 (1980) 151
Soff, G., *see* P. Schlüter 75 (1981) 327
Soffel, M., B. Müller and W. Greiner, Stability and decay of the Dirac vacuum in external gauge fields 85 (1982) 51
Soffer, J., *see* C. Bourrely 59 (1980) 95
Soffer, J., *see* C. Bourrely 177 (1989) 319
Sohnius, M.F., Introducing supersymmetry 128 (1985) 39
Sokoloff, J.B., Unusual band structure, wave functions and electrical conductance in crystals with incommensurate periodic potentials 126 (1985) 189
Sol, H., *see* E. Asseo 148 (1987) 307
Solvay, J., Opening remarks 104 (1984) 103
Sonntag, B., *see* E.E. Koch 29 (1977) 153
Sonoda, D.H., *see* J.D. Barrow 139 (1986) 1
Sosnowski, R., *see* W.M. Geist 197 (1990) 263
Souillard, B., Electrons in random and almost-periodic potentials 103 (1984) 41
Sourlas, N., *see* C. Itzykson 103 (1984) 1
Sourlas, N., *see* C. Itzykson 184 (1989) 99
Spatschek, K.H., *see* P.K. Shukla 105 (1984) 227
Spear, R.H., State quadrupole moments of first 2^+ states in the 2s–1d shell: A review of experiment and theory 73 (1981) 369
Specht, H.J., *see* V. Metag 65 (1980) 1
Spencer, Th., *see* J. Fröhlich 103 (1984) 9
Sperber, D., *see* J.P. Bondorf 15 (1974) 83
Sperber, D., *see* J.R. Birkelund 56 (1979) 107
Speth, J., E. Werner and W. Wild, Theory of finite Fermi systems and applications to the lead region 33 (1977) 127
Speth, J., *see* S. Krewald 161 (1988) 103
Speth, J., *see* S. Drożdż 197 (1990) 1
Spiro, M., *see* J. Rich 151 (1987) 239
Sridhar, R., Anomalous phonon dispersion in helium II 146 (1987) 259
Srivastava, G.P. and R.A.H. Hamilton, Complementary variational principles 38 (1978) 1

Srivastava, Y. and A. Widom, Quantum electrodynamic processes in electrical engineering circuits 148 (1987) 1
Standage, M.C., *see* W.R. MacGillivray 168 (1988) 1
Stankowski, J., Molecular dynamics of ferroelectric crystals of the triglycine sulphate family 77 (1981) 1
Stauffer, D., Scaling theory of percolation clusters 54 (1979) 1
Stehle, P., Rabi oscillations and generalizations 156 (1987) 67
Stenflo, L., *see* O.M. Gradov 94 (1983) 111
Stenholm, S., Quantum theory of electromagnetic fields interacting with atoms and molecules 6 (1973) 1
Stenholm, S., Theoretical foundations of laser spectroscopy 43 (1978) 151
Stevens, K.W.H., Exchange interactions in magnetic insulators 24 (1976) 1
Stevens, K.W.H., *see* F. Mehran 85 (1982) 123
Stock, R., Particle production in high energy nucleus–nucleus collisions 135 (1986) 259
Stöcker, H. and W. Greiner, High energy heavy ion collisions – Probing the equation of state of highly excited hadronic matter 137 (1986) 277
Stoeger, W.R., *see* G.F.R. Ellis 124 (1985) 315
Stolte, S., *see* C. Liedenbaum 178 (1989) 1
Stolterfoht, N., High resolution Auger spectroscopy in energetic ion atom collisions 146 (1987) 315
Stone, H., *see* MARK J Collaboration 109 (1984) 131
Stora, R., *see* J.L. Madore 49 (1979) 113
Stora, R., An unpublished work by V. Glaser: "The Polynomial Map" 134 (1986) 391
Storrow, J.K., Baryon exchange processes 103 (1984) 317
Stoyanov, Ch., *see* S. Galès 166 (1988) 125
Strange, J.H., *see* J.M. Chezeau 53 (1979) 1
Streit, L., Energy forms, Schroedinger theory, processes 77 (1981) 363
Strelchenya, V.M., *see* A.V. Bogdanov 181 (1989) 121
Strikman, M., *see* L. Frankfurt 160 (1988) 235
Strikman, M.I., *see* L.L. Frankfurt 76 (1981) 215
Stringari, S., *see* E. Lipparini 175 (1989) 103
Stroscio, M.A., Positronium: a review of the theory 22 (1975) 215
Strottman, D., *see* N. Anyas-Weiss 12 (1974) 201
Strottman, D., *see* R.B.Clare 141 (1986) 177
Stroud Jr., C.R., *see* L. Allen 91 (1982) 1
Stroynowski, R., Lepton pair production in hadron collisions 71 (1981) 1
Stroynowski, R., *see* B.C. Barish 157 (1988) 1
Su, Z.B., *see* K.C. Chou 118 (1985) 1
Sucher, J., *see* G. Feinberg 180 (1989) 83
Sudarshan, E.C.G., Unfolding, fibre bundles, color breaking and gauge invariance 137 (1986) 93
Sugar, R.L., *see* H.D.I. Abarbanel 21 (1975) 119
Suhonen, E., *see* J. Cleymans 130 (1986) 217
Sural, D.P., *see* D. Basu 42 (1978) 145
Surdutovich, G.I., *see* A.P. Kazantsev 129 (1985) 75
Susskind, L., *see* J. Kogut 8 (1973) 75
Susskind, L. and J. Kogut, New ideas about confinement 23 (1976) 348
Susskind, L., *see* E. Farhi 74 (1981) 277
Susskind, L., The gauge hierarchy problem, technicolor, supersymmetry, and all that 104 (1984) 181
Svendsen, B., J.D. Bass and T.J. Ahrens, Optical radiation form shock-compressed materials and interfaces 180 (1989) 333

Svetitsky, B., Symmetry aspects of finite-temperature confinement transitions 132 (1986) 1
Swanenburg, T.J.B., *see* C.A.A.J. Greebe 1 (1971) 235
Swanenburg, T.J.B., *see* W.Th. Wenckebach 14 (1974) 181
Swiatecki, W.J. and S. Bjørnholm, Fission and fusion dynamics 4 (1972) 325
Swider, G.M., *see* MARK J Collaboration 109 (1984) 131
Syros, C., The linear Boltzmann equation properties and solutions 45 (1978) 211
Szabo, N., The isothermal local resistivity and its connection to different theories 41 (1978) 329
Szymański, Z., *see* A. Johnson 7 (1973) 181

'T Hooft, G., Quantum field theory for elementary particles 104 (1984) 129
'T Hooft, G., How instantons solve the U(1) problem 142 (1986) 357
Tadić, D., *see* E. Fischbach 6 (1973) 123
Takatsuka, K., *see* R.R. Lucchese 131 (1986) 147
Takeno, S., *see* F. Yoshida 173 (1989) 301
Tamura, T., Compact reformulation of distorted-wave and coupled-channel Born approximations for transfer reactions between nuclei 14 (1974) 59
Tamura, T., T. Udagawa and M.C. Mermaz, Direct reaction analyses of heavy-ion induced reactions leading to discrete states 65 (1980) 345
Tanaka, H., *see* I. Šlaus 173 (1989) 257
Tanaka, S., *see* S. Ichimaru 149 (1987) 91
Tang, H.W., *see* MARK J Collaboration 63 (1980) 337
Tang, H.W., *see* MARK J Collaboration 109 (1984) 131
Tang, L.G., *see* MARK J Collaboration 63 (1980) 337
Tang, X.T., *see* K.W. McVoy 94 (1983) 139
Tang, Y.C., M. LeMere and D.R. Thompson, Resonating-group method for nuclear many-body problems 47 (1978) 167
Tang, Y.C., *see* B.F. Bayman 147 (1987) 155
Tanimura, O. and T. Tazawa, Perturbed stationary state approach to nuclear heavy ion collision 61 (1980) 253
Tarasov, N.A., *see* M.M. Nesterov 185 (1990) 171
Tarasov, Y.V., *see* E.A. Kaner 165 (1988) 189
Tata, X., *see* M. Chen 159 (1988) 201
Taxil, P., *see* C. Bourrely 177 (1989) 319
Taylor, C.C., *see* J.A. Shapiro 191 (1990) 221
Taylor, J.G., *see* A. Restuccia 174 (1989) 283
Tazawa, T., *see* O. Tanimura 61 (1980) 253
Ter Haar, B. and R. Malfliet, Nucleons, mesons and deltas in nuclear matter. A relativistic Dirac–Brueckner approach 149 (1987) 207
Ter Haar, D. and H. Wergeland, Thermodynamics and statistical mechanics in the special theory of relativity 1 (1971) 31
Ter Haar, D., *see* F.K. Lamb 2 (1971) 253
Ter Haar, D., Pulsars 3 (1972) 57
Ter Haar, D., *see* C.A. Norman 17 (1975) 307
Ter Haar, D., *see* S.G. Thornhill 43 (1978) 43
Ter Haar, D. and V.N. Tsytovich, Modulational instabilities in astrophysics 73 (1981) 175
Ter-Martirosyan, K.A., *see* M. Baker 28 (1976) 1
Tetervov, A.P., *see* F.G. Bass 140 (1986) 237
Teuchert, D., *see* MARK J Collaboration 109 (1984) 131

Thomas, A.W. and R.H. Landau, Pion–deuteron and pion–nucleus scattering – a review 58 (1980) 121
Thomas, H., *see* P. Hänggi 88 (1982) 207
Thompson, D.R., *see* Y.C. Tang 47 (1978) 167
Thompson, M.W., Physical mechanisms of sputtering 69 (1981) 335
Thorn, C.B., Dual models and strings: the critical dimension 67 (1980) 163
Thorn, C.B., Duality and finite size effects in six vertex models 67 (1980) 171
Thorn, C.B., String field theory 175 (1989) 1
Thorndahl, L., *see* D. Möhl 58 (1980) 73
Thorndike, E.H. and R.A. Poling, Decays of the b quark 157 (1988) 183
Thornhill, S.G. and D. ter Haar, Langmuir turbulence and modulational instability 43 (1978) 43
Thouless, D., Quantized Hall effect in two-dimensional periodic potentials 110 (1984) 279
Thouless, D.J., Electrons in disordered systems and the theory of localization 13 (1974) 93
Thouless, D.J., Introduction to localization 67 (1980) 5
Thyagaraja, A., *see* F.A. Haas 143 (1986) 241
Tiddy, G.J.T., Surfactant-water liquid crystal phases 57 (1980) 1
Tikhonchuk, V.T., *see* V.P. Silin 135 (1986) 1
Ting, S.C.C., *see* MARK J Collaboration 63 (1980) 337
Ting, S.C.C., *see* MARK J Collaboration 109 (1984) 131
Tipler, F.J., *see* J.D. Barrow 56 (1979) 371
Tipler, F.J., *see* J.E. Marsden 66 (1980) 109
Tipler, F.J., Interpreting the wave function of the Universe 137 (1986) 231
Titman, J.M., Nuclear magnetic resonance in liquid metals and alloys 33 (1977) 1
Tod, K.P., *see* M. Ko 71 (1981) 51
Toda, M., Studies of a non-linear lattice 18 (1975) 1
Toki, H., *see* E. Oset 83 (1982) 281
Tomita, K., Chaotic response of nonlinear oscillators 86 (1982) 113
Toombs, G.A., Quasi-one-dimensional conductors 40 (1978) 181
Torre, A., *see* F. Ciocci 141 (1986) 1
Toulouse, G., Symmetry and topology concepts for spin glasses and other glasses 49 (1979) 267
Toulouse, G., *see* E. Brézin 67 (1980) 1
Toulouse, G. and J. Vannimenus, On the connection between spin glasses and gauge field theories 67 (1980) 47
Towner, I.S., Quenching of spin matrix elements in nuclei 155 (1987) 263
Trajmar, S., D.F. Register and A. Chutjian, Electron scattering by molecules II. Experimental methods and data 97 (1983) 219
Tran, T.M. and J.S. Wurtele, Free-electron laser simulation techniques 195 (1990) 1
Tran Thanh Van, J., *see* M. Jacob 88 (1982) 321
Tranquillo, R.T., *see* J.D. Murray 171 (1988) 59
Tratnik, M.V., *see* D. David 187 (1990) 281
Trautmann, D., *see* G. Baur 25 (1976) 293
Trautmann, D., *see* G. Baur 111 (1984) 333
Triantis, F., *see* UA5 Collaboration 154 (1987) 247
Trilling, G.H., The properties of charmed particles 75 (1981) 57
Tripathi, V.K., *see* C.S. Liu 130 (1986) 143
Troitsky, M.A., *see* A.B. Migdal 192 (1990) 177
Trombka, J.I. and C.E. Fichtel, Gamma-ray astrophysics 97 (1983) 173
Troup, G.J., The physics of the singing voice 74 (1981) 379
Troyan, S.I., *see* Yu.L. Dokshitzer 58 (1980) 269

Trubnikov, B.A. and S.K. Zhdanov, Unstable quasi-gaseous media 155 (1987) 137
Truran, J.W., *see* D.N. Schramm 189 (1990) 89
Tsai, D.H., *see* R.A. MacDonald 46 (1978) 1
Tsai, S.F., *see* G.F. Bertsch 18 (1975) 125
Tsao, C.H., *see* R. Silberberg 191 (1990) 351
Tseytlin, A.A., *see* E.S. Fradkin 119 (1985) 233
Tsintsadze, N.L., *see* P.K. Shukla 138 (1986) 1
Tsuruta, S., Thermal properties and detectability of neutron stars – I. Cooling and heating of neutron stars 56 (1979) 237
Tsytovich, V.N., *see* S.A. Kaplan 7 (1973) 1
Tsytovich, V.N., *see* S.A. Kaplan 15 (1974) 1
Tsytovich, V.N., *see* L.I. Rudakov 40 (1978) 1
Tsytovich, V.N., *see* V.L. Ginzburg 49 (1979) 1
Tsytovich, V.N., *see* D. ter Haar 73 (1981) 175
Tsytovich, V.N., Radiative-resonant collective wave–particle interactions 178 (1989) 261
Tubbs, L.E., *see* J.R. Birkelund 56 (1979) 107
Tugushev, V.V., *see* V.M. Dubovik 187 (1990) 145
Tung, K.L., *see* MARK J Collaboration 63 (1980) 337
Tung, K.L., *see* MARK J Collaboration 109 (1984) 131
Türke, U., *see* E.A. Paschos 178 (1989) 145
Turner, M.S., Windows on the axion 197 (1990) 67
Tzvetkov, E., *see* E. Levich 128 (1985) 1

UA5 Collaboration, G.J. Alner, K. Alpgård, P. Anderer, R.E. Ansorge, B. Åsman, S. Berglund, K. Berkelman, D. Bertrand, C.N. Booth, C. Buffam, L. Burow, P. Carlson, J.-L. Chevalley, C. Declercq, R.S. DeWolf, B. Eckart, G. Ekspong, I. Evangelou, A. Eyring, J.-P. Fabre, M. Fischer, K.A. French, C. Fuglesang, J. Gaudaen, C. Geich-Gimbel, M. Gijsen, K. von Holt, R. Hospes, D. Johnson, K. Jon-And, Th. Kokott, M. Langer, F. Lotse, R. Mackenzie, M.N. Maggs, R. Meinke, Th. Müller, H. Mulkens, D.J. Munday, A. Odian, J.E.V. Ovens, M. Rosenberg, J.G. Rushbrooke, H. Saarikko, T. Saarikko, H. Schmickler, F. Triantis, L. Van Hamme, Ch. Walck, C.P. Ward, D.R. Ward, G. Weber, T.O. White, G. Wilquet and N. Yamdagni, UA5: A general study of proton–antiproton physics at $\sqrt{s} = 546$ GeV 154 (1987) 247
Udagawa, T., *see* T. Tamura 65 (1980) 345
Uhlenbeck, G.E., *see* R.M. Ziff 32 (1977) 169
Umezawa, H., *see* L. Leplae 10 (1974) 151
Uryupin, S.A., *see* V.Yu. Bychenkov 164 (1988) 119
Uzer, T., Theories of intramolecular vibrational energy transfer 199 (1991) 73

V. Löhneysen, H., Low energy excitations in amorphous metals 79 (1981) 161
Vaagen, J.S., *see* J.M. Bang 125 (1985) 253
Vainshtein, A.I., *see* V.A. Novikov 41 (1978) 1
Vainshtein, A.I., *see* V.A. Novikov 116 (1984) 103
Vali, G., *see* R.R. Rogers 48 (1978) 65
Valls, O.T., *see* K. Levin 98 (1983) 1
Valluri, S.R., *see* G. Papini 33 (1977) 51
Van Attekum, P.M.T.M., *see* J.A. Pals 89 (1982) 323
Van Dalen, P.A., *see* C.A.A.J. Greebe 1 (1971) 235

Van der Meer, S., *see* D. Möhl 58 (1980) 73
Van der Mullen, J.A.M., Excitation equilibria in plasmas; a classification 191 (1990) 109
Van der Werf, S.Y., *see* M. Waroquier 148 (1987) 249
Van der Woude, F. and G.A. Sawatzky, Mössbauer effect in iron and dilute iron based alloys 12 (1974) 335
Van Hamme, L., *see* UA5 Collaboration 154 (1987) 247
Van Hemmen, J.L., Dynamics and ergodicity of the infinite harmonic crystal 65 (1980) 43
Van Hove, L., Particle production in high energy hadron collisions 1 (1971) 347
Van Hove, L. and M. Jacob, Highlights of 25 years of physics at CERN 62 (1980) 1
Van Hove, L. (editor), Higher Energy Physics. What are the possibilities for extending our understanding of elementary particles and their interactions to much greater energies? Proceedings of the XVIIIth Solvay Conference on Physics at the University of Texas, Austin, Texas, U.S.A., November 1982 104 (1984) 87
Van Hove, L., Foreword 104 (1984) 101
Van Hove, L., Quantum field theory at positive temperature 137 (1986) 11
Van Isacker, P., *see* K. Heyde 102 (1983) 291
Van Kampen, N.G., Stochastic differential equations 24 (1976) 171
Van Kampen, N.G., Elimination of fast variables 124 (1985) 69
Van Maaren, M.H., *see* E.E. Havinga 10 (1974) 107
Van Nieuwenhuizen, P., Supergravity 68 (1981) 189
Van Velsen, J.F.C., On linear response theory and area preserving mappings 41 (1978) 135
Van Weert, Ch.G., *see* N.P. Landsman 145 (1987) 141
VanDalen, G., *see* A. Kernan 106 (1984) 297
VanderVelde, J., *see* F. Reines 163 (1988) 137
Vannimenus, J., *see* G. Toulouse 67 (1980) 47
Vannimenus, J. and J.P. Nadal, Strip-these for random systems 103 (1984) 47
Vannucci, F., *see* MARK J Collaboration 63 (1980) 337
Varadhan, S.R.S., *see* M.D. Donsker 77 (1981) 235
Vargas, H. and L.C.M. Miranda, Photoacoustic and related photothermal techniques 161 (1988) 43
Vaz, L.C., J.M. Alexander and G.R. Satchler, Fusion barriers, empirical and theoretical: Evidence for dynamic deformation in subbarrier fusion 69 (1981) 373
Vaz, L.C. and J.M. Alexander, Reassessment of fission fragment angular distributions from continuum states in the context of transition-state theory 97 (1983) 1
Vdovin, A.I., *see* S. Galès 166 (1988) 125
Velasco, V.R., *see* F. García-Moliner 200 (1991) 83
Velikovich, A.L., *see* M.A. Liberman 84 (1982) 1
Veneziano, G., An introduction to dual models of strong interactions and their physical motivations 9 (1974) 199
Veneziano, G., *see* L. Montanet 63 (1980) 149
Veneziano, G., *see* V. de Alfaro 137 (1986) 55
Veneziano, G., *see* D. Amati 162 (1988) 169
Vepstas, L. and A.D. Jackson, Justifying the chiral bag 187 (1990) 109
Verbaarschot, J.J.M., H.A. Weidenmüller and M.R. Zirnbauer, Grassmann integration in stochastic quantum physics: The case of compound–nucleus scattering 129 (1985) 367
Vergados, J.D., The neutrino mass and family, lepton and baryon number non-conservation in gauge theories 133 (1986) 1
Vernickel, H., Data needs for plasma surface interaction 37 (1978) 93
Verter, F., Cosmic gamma-ray bursts 81 (1982) 293
Vialle, J.-P., *see* P. Musset 39 (1978) 1

Viehland, L.A., *see* E.W. McDaniel 110 (1984) 333
Vilenkin, A., Cosmic strings and domain walls 121 (1985) 263
Vilkovisky, G.A., *see* A.O. Barvinsky 119 (1985) 1
Vincx, H., *see* K. Heyde 26 (1976) 227
Viola Jr., V.E., *see* W.U. Schröder 45 (1978) 301
Virasoro, M.A., *see* C. Itzykson 184 (1989) 99
Virasoro, M.A., Categorization in neural networks and prosopagnosia 184 (1989) 301
Vo Hongh Anh, A quantum approach to the parametric excitation problem in solids 64 (1980) 1
Vogel, P., *see* P.H. Frampton 82 (1982) 339
Volkas, R.R. and G.C. Joshi, Supersymmetric composite models 159 (1988) 303
Volkov, V.V., Deep inelastic transfer reactions – The new type of reactions between complex nuclei 44 (1978) 93
Voloshin, M.B., *see* V.A. Novikov 41 (1978) 1
Von Holt, K., *see* UA5 Collaboration 154 (1987) 247
Von Oertzen, W. and H.G. Bohlen, Elastic transfer processes in heavy ion scattering 19 (1975) 1
Von Oertzen, W., *see* B. Imanishi 155 (1987) 29
Vorobyov, A.A., *see* G.D. Alkhazov 42 (1978) 89
Voros, A., *see* N.L. Balazs 143 (1986) 109
Voskresensky, D.N., *see* A.B. Migdal 192 (1990) 177
Voss, R., *see* T. Sloan 162 (1988) 45
Vujnović, V., *see* A.N. Klucharev 185 (1990) 55
Vulpiani, A., *see* G. Paladin 156 (1987) 147

Wachter, P., Electronic structure, magnetic exchange, and electrical transport properties of the magnetic compounds EuS, GdS and GdP 44 (1978) 159
Wadati, M., Quantum field theory of crystals and extended objects 50 (1979) 87
Wadati, M., T. Deguchi and Y. Akutsu, Exactly solvable models and knot theory 180 (1989) 247
Wagh, S.M. and N. Dadhich, The energetics of black holes in electromagnetic fields by the Penrose process 183 (1989) 137
Wagner, W., *see* Ch. Berger 146 (1987) 1
Walck, Ch., *see* UA5 Collaboration 154 (1987) 247
Walker, G.E., *see* C.B. Dover 89 (1982) 1
Wallace, D.J., Numerical simulation on the ICL distributed array processor 103 (1984) 191
Walling, R.S. and J.C. Weisheit, Bound-state excitation in ion–ion collisions 162 (1988) 1
Walters, H.R.J., Perturbative methods in electron– and positron–atom scattering 116 (1984) 1
Wambach, J., *see* S. Drożdż 197 (1990) 1
Wanderer, P., *see* H. Hahn 29 (1977) 85
Wang, M.Q., *see* MARK J Collaboration 109 (1984) 131
Wang, X.R., *see* MARK J Collaboration 63 (1980) 337
Ward, C.P., *see* UA5 Collaboration 154 (1987) 247
Ward, D.R., *see* UA5 Collaboration 154 (1987) 247
Warner, N.P., *see* W. Lerche 177 (1989) 1
Waroquier, M., *see* K. Heyde 26 (1976) 227
Waroquier, M., *see* K. Heyde 102 (1983) 291
Waroquier, M., J. Ryckebusch, J. Moreau, K. Heyde, N. Blasi, S.Y. van der Werf and G. Wenes, Rearrangement effects in shell-model calculations using density-dependent interactions 148 (1987) 249
Warszawski, J., *see* J. Alster 52 (1979) 87

Wartell, R.M. and A.S. Benight, Thermal denaturation of DNA molecules: A comparison of theory with experiment 126 (1985) 67
Watkins, M.L., Data needs, priorities and accuracies for plasma modelling 37 (1978) 111
Weaver, T.A., *see* S.E. Woosley 163 (1988) 79
Webb, S.J., Laser–Raman spectroscopy of living cells 60 (1980) 201
Webber, B.R., *see* J.G. Rushbrooke 44 (1978) 1
Weber, E.W., Optical pumping of ions 32 (1977) 123
Weber, G., *see* UA5 Collaboration 154 (1987) 247
Weber, H.J. and H. Arenhövel, Isobar configurations in nuclei 36 (1978) 277
Weber, W.H., *see* G.W. Ford 113 (1984) 195
Weekes, T.C., Very high energy gamma-ray astronomy 160 (1988) 1
Wegener, D., *see* W.M. Geist 197 (1990) 263
Wegner, F., Disordered electronic system as a model of interacting matrices 67 (1980) 15
Wegner, F., Anderson transition and nonlinear σ-models 103 (1984) 27
Wei, P.S., *see* MARK J Collaboration 63 (1980) 337
Weidenmüller, H.A., *see* D. Agassi 22 (1975) 145
Weidenmüller, H.A., *see* J.J.M. Verbaarschot 129 (1985) 367
Weigel, H., *see* B. Schwesinger 173 (1989) 173
Weigold, E., *see* I.E. McCarthy 27 (1976) 275
Weinberg, S., Energy scales (summary) 104 (1984) 107
Weinert, U., Multi-temperature generalized moment method in Boltzmann transport theory 91 (1982) 297
Weinstein, A., *see* D.D. Holm 123 (1985) 1
Weis, J.H., *see* R.C. Brower 14 (1974) 257
Weise, W., Hadronic aspects of photon–nucleus interactions 13 (1974) 53
Weise, W., *see* G.E. Brown 22 (1975) 279
Weise, W., *see* G.E. Brown 27 (1976) 1
Weise, W., *see* E. Oset 83 (1982) 281
Weisheit, J.C., *see* R.S. Walling 162 (1988) 1
Weiss, K., *see* J.A. Pals 89 (1982) 323
Wenckebach, W.Th., T.J.B. Swanenburg and N.J. Poulis, Thermodynamics of spin systems in paramagnetic crystals 14 (1974) 181
Wenes, G., *see* M. Waroquier 148 (1987) 249
Wennerström, H. and B. Lindman, Physical chemistry of surfactant association 52 (1979) 1
Wergeland, H., *see* D. ter Haar 1 (1971) 31
Werij, H.G.C. and J.P. Woerdman, Light-induced drift of Na atoms 169 (1988) 145
Wermes, N., *see* L. Köpke 174 (1989) 67
Werner, E., *see* J. Speth 33 (1977) 127
West, G.B., Electron scattering from atoms, nuclei and nucleons 18 (1975) 263
Weyer, H.J., Pion absorption in light nuclei 195 (1990) 295
Wheater, J., *see* R.J. Cashmore 122 (1985) 275
White, A.R., *see* H.D.I. Abarbanel 21 (1975) 119
White, M., *see* MARK J Collaboration 63 (1980) 337
White, M., *see* MARK J Collaboration 109 (1984) 131
White, T.O., *see* UA5 Collaboration 154 (1987) 247
Whitman, A.P., *see* G.F.R. Ellis 124 (1985) 315
Whitmore, J., Experimental results on strong interactions in the NAL hydrogen bubble chamber 10 (1974) 273
Whitmore, J., Multiparticle production in the Fermilab bubble chambers 27 (1976) 187

Widom, A., *see* Y. Srivastava 148 (1987) 1
Wiegel, F.W., Path integral methods in statistical mechanics 16 (1975) 57
Wiegel, F.W., Diffusion and the physics of chemoreception 95 (1983) 283
Wiesenfeld, L., *see* J.B. Robert 86 (1982) 363
Wigner, E.P., *see* M. Hillery 106 (1984) 121
Wiita, P.J., Active galactic nuclei I. Observations and fundamental interpretations 123 (1985) 117
Wilczek, F., Foundations and working pictures in microphysical cosmology 104 (1984) 143
Wild, W., *see* J. Speth 33 (1977) 127
Wildenthal, B.H., *see* B.A. Brown 101 (1983) 313
Wilhelmsson, H., *see* Yu.L. Klimontovich 175 (1989) 263
Will, C.M., The confrontation between general relativity and experiment: an update 113 (1984) 345
Wille, U. and R. Hippler, Mechanisms of inner-shell vacancy production in slow ion–atom collisions 132 (1986) 129
Williams, J.F., *see* P.G. Burke 34 (1977) 325
Willis, W., Experiments on high energy density states 88 (1982) 393
Wilquet, G., *see* UA5 Collaboration 154 (1987) 247
Wilson, J.R. and R.W. Mayle, Convection in core collapse supernovae 163 (1988) 63
Wilson, K.G. and J. Kogut, The renormalization group and the ε expansion 12 (1974) 75
Wilson, K.G., Quarks on a lattice, or, the colored string model 23 (1976) 331
Wilson, R.R., *see* A. De Rújula 99 (1983) 341
Windey, P., *see* F. Englert 49 (1979) 173
Winston, J.V., *see* J.W. Clark 123 (1985) 215
Winter, H., *see* R.K. Janev 117 (1985) 265
Wintgen, D., *see* H. Friedrich 183 (1989) 37
Winther, A., *see* R.A. Broglia 4 (1972) 153
Winther, A., *see* U. Götz 16 (1975) 115
Winther, A., *see* R.A. Broglia 29 (1977) 291
Winther, A., *see* R.A. Broglia 48 (1978) 351
Winther, Aa., *see* R.A. Broglia 11 (1974) 1
Witkowski, S., *see* P. Mulser 6 (1973) 187
Woerdman, J.P., *see* H.G.C. Werij 169 (1988) 145
Wolf, E.L. and G.B. Arnold, Proximity electron tunneling spectroscopy 91 (1982) 31
Wolf, K.L., *see* W.U. Schröder 45 (1978) 301
Wolter, J., *see* C.A.A.J. Greebe 1 (1971) 235
Wolter, J., *see* J.A. Pals 89 (1982) 323
Wong, C.W., Generator-coordinate methods in nuclear physics 15 (1975) 283
Wong, C.W., An overview of quarks in nuclei 136 (1986) 1
Wong, E.K., *see* D.M. Lin 193 (1990) 41
Wong, K., *see* D. Sherrington 184 (1989) 293
Wood, J.L., *see* K. Heyde 102 (1983) 291
Woosley, S.E. and T.A. Weaver, Presupernova models: sensitivity to convective algorithm and Coulomb corrections 163 (1988) 79
Worden, R.P., *see* A.C. Irving 34 (1977) 117
Wortis, M., *see* C. Rottman 103 (1984) 59
Wu, G.H., *see* MARK J Collaboration 63 (1980) 337
Wu, H.G., *see* MARK J Collaboration 109 (1984) 131
Wu, S.X., *see* MARK J Collaboration 109 (1984) 131
Wu, Sau Lan, e^+e^- physics at PETRA – The first five years 107 (1984) 59
Wu, T.T., *see* B.M. McCoy 49 (1979) 193

Wu, T.T., Two-dimensional Yang–Mills theory in the leading $1/N$ expansion 49 (1979) 245
Wu, T.W., *see* MARK J Collaboration 63 (1980) 337
Wurtele, J.S., *see* T.M. Tran 195 (1990) 1
Wyder, P., *see* J.A.A.J. Perenboom 78 (1981) 173
Wyllie, G., Random motion and Brownian rotation 61 (1980) 327
Wyslouch, B., *see* MARK J Collaboration 109 (1984) 131

Xi, J.P., *see* MARK J Collaboration 63 (1980) 337

Yagi, K., *see* M. Igarashi 199 (1991) 1
Yahiro, M., *see* N. Austern 154 (1987) 125
Yakimenko, I.P., *see* Yu.L. Klimontovich 175 (1989) 263
Yakobson, M.V., *see* V.M. Alekseev 75 (1981) 287
Yakovlev, V.P., *see* A.P. Kazantsev 129 (1985) 75
Yamawaki, K., *see* M. Bando 164 (1988) 217
Yamdagni, N., *see* UA5 Collaboration 154 (1987) 247
Yang, B.X., *see* MARK J Collaboration 109 (1984) 131
Yang, P.C., *see* MARK J Collaboration 63 (1980) 337
Yazaki, S., *see* L.J. Reinders 127 (1985) 1
Yennie, D.R., *see* G.T. Bodwin 43 (1978) 267
Yokosawa, A., Reviews of experimental results from the polarized-beam program at the Argonne ZGS 64 (1980) 47
Yoo, H.-I. and J.H. Eberly, Dynamical theory of an atom with two or three levels interacting with quantized cavity fields 118 (1985) 239
Yoshida, F. and S. Takeno, Dynamical correlations and collective excitations in liquids 173 (1989) 301
Youngman, C., *see* R.J. Cashmore 122 (1985) 275
Yu, C.C., *see* MARK J Collaboration 63 (1980) 337
Yu, L., *see* K.C. Chou 118 (1985) 1
Yu, M.Y., *see* P.K. Shukla 105 (1984) 227
Yu, M.Y., *see* P.K. Shukla 138 (1986) 1
Yu, X.H., *see* MARK J Collaboration 63 (1980) 337

Zabolitzky, J.G., *see* H. Kümmel 36 (1978) 1
Zachariasen, F., Theoretical models of diffraction scattering 2 (1971) 1
Zagorodny, A.G., *see* Yu.L. Klimontovich 175 (1989) 263
Zahed, I. and G.E. Brown, The Skyrme model 142 (1986) 1
Zaikin, A.D., *see* G. Schön 198 (1990) 237
Zakharov, V.E., S.L. Musher and A.M. Rubenchik, Hamiltonian approach to the description of non-linear plasma phenomena 129 (1985) 285
Zakharov, V.E., *see* E.A. Kuznetsov 142 (1986) 103
Zakharov, V.I., *see* V.A. Novikov 41 (1978) 1
Zakharov, V.I., *see* V.A. Novikov 116 (1984) 103
Zamick, L., *see* A. Mekjian 95 (1983) 321
Zamick, L., *see* B. Castel 148 (1987) 217
Zaslavsky, G.M., Stochasticity in quantum systems 80 (1981) 157
Zavilopulo, A.N., *see* I.I. Fabrikant 159 (1988) 1
Zee, A., The proton–neutron mass difference problem and related topics 3 (1972) 127
Zerwas, P.M., *see* J.H. Kühn 167 (1988) 321
Zettl, A., *see* G. Grüner 119 (1985) 117

Zhang, N.L., *see* MARK J Collaboration 63 (1980) 337
Zhdanov, R.Z., *see* W.I. Fushchich 172 (1989) 123
Zhdanov, S.K., *see* B.A. Trubnikov 155 (1987) 137
Zhitnitsky, A.R., *see* V.L. Chernyak 112 (1984) 173
Zhou, B., *see* MARK J Collaboration 109 (1984) 131
Zhu, R.Y., *see* MARK J Collaboration 63 (1980) 337
Zhu, R.Y., *see* MARK J Collaboration 109 (1984) 131
Zhu, Y.C., *see* MARK J Collaboration 109 (1984) 131
Ziff, R.M., G.E. Uhlenbeck and M. Kac, The ideal Bose–Einstein gas, revisited 32 (1977) 169
Zinn-Justin, J., Strong interactions dynamics with Padé approximants 1 (1971) 55
Zinn-Justin, J., Large-order estimates in perturbation theory 49 (1979) 205
Zinn-Justin, J., Perturbation series at large orders in Quantum Mechanics and Field Theories: Application to the problem of resummation 70 (1981) 109
Zirnbauer, M.R., *see* J.J.M. Verbaarschot 129 (1985) 367
Zoller, P., *see* G. Alber 199 (1991) 231
Zuber, J.-B., *see* J.-M. Drouffe 102 (1983) 1
Zuckermann, M.J., *see* R.W. Cochrane 48 (1978) 1
Zuker, A., *see* A. Poves 70 (1981) 235
Zuker, A., *see* A. Poves 71 (1981) 141
Zumino, B., Supersymmetry and supergravity 104 (1984) 113
Zumino, B., Gravity theories in more than four dimensions 137 (1986) 109
Zwermann, W., *see* B. Schürmann 147 (1987) 1

SUBJECT INDEX

General

Thermodynamics and statistical mechanics in the special theory of relativity, D. ter Haar and H. Wergeland 1 (1971) 31
The interaction of atoms with polarised light, F.K. Lamb and D. ter Haar 2 (1971) 253
Twister theory: an approach to the quantisation of fields and space-time, R. Penrose and M.A.H. MacCallum 6 (1973) 241
Skeptical quantum theory, H.J. Groenewold 11 (1974) 327
Path integral methods in statistical mechanics, F.W. Wiegel 16 (1975) 57
Electromagnetic stress and momentum in matter, F.N.H. Robinson 16 (1975) 313
Quantum kinetic theory of polyatomic gases, H. Moraal 17 (1975) 225
Studies of a non-linear lattice, M. Toda 18 (1975) 1
Quantum field theory in curved spacetime, B.S. DeWitt 19 (1975) 295
Dynamical symmetries in mechanics, K. Mariwalla 20 (1975) 287
Stochastic differential equations, N.G. van Kampen 24 (1976) 171
Polymers and scaling, D.S. McKenzie 27 (1976) 35
The ideal Bose–Einstein gas, revisited, R.M. Ziff, G.E. Uhlenbeck and M. Kac 32 (1977) 169
Gravitons in Minkowski space-time. Interactions and results of astrophysical interest, G. Papini and S.R. Valluri 33 (1977) 51
Dynamics of classical solitons (in non-integrable systems), V.G. Makhankov 35 (1978) 1
The method of Boson expansions in quantum theory, P. Garbaczewski 36 (1978) 65
Complementary variational principles, G.P. Srivastava and R.A.H. Hamilton 38 (1978) 1
Penrose graphs, A. Qadir 39 (1978) 131
On linear response theory and area preserving mappings, J.F.C. van Velsen 41 (1978) 135
Quantum theory of solitons, L.D. Faddeev and V.E. Korepin 42 (1978) 1
Quantum theory of anharmonic oscillators: energy levels of a single and a pair of coupled oscillators with quartic coupling, F.T. Hioe, D. MacMillen and E.W. Montroll 43 (1978) 305
State reduction in quantum mechanics: a calculational example, M.O. Scully, R. Shea and J.D. McCullen 43 (1978) 485
The EPR paradox revisited, C.D. Cantrell and M.O. Scully 43 (1978) 499
The linear Boltzmann equation properties and solutions, C. Syros 45 (1978) 211
Gravitational waves and the detection of gravitational radiation, V.B. Braginsky and V.N. Rudenko 46 (1978) 165
Gaussian stochastic processes in physics, R.F. Fox 48 (1978) 179
Quantum field theory of crystals and extended objects, M. Wadati 50 (1979) 87
Path integration in non-relativistic quantum mechanics, C. DeWitt-Morette, A. Maheshwari and B. Nelson 50 (1979) 255
Strong spin-two interaction and general relativity, C. Sivaram and K.P. Sinha 51 (1979) 111
A universal instability of many-dimensional oscillator systems, B.V. Chirikov 52 (1979) 263

Scaling theory of percolation clusters, D. Stauffer 54 (1979) 1
Ball lightning, W.N. Charman 54 (1979) 261
A practical guide to the hypernetted chain method applied to Fermi and Bose systems, G. Ripka 56 (1979) 1
Singularities in Bianchi cosmologies, C.B. Collins and G.F.R. Ellis 56 (1979) 65
Analysis of the generic singularity studies by Belinskii, Khalatnikov, and Lifschitz, J.D. Barrow and F.J. Tipler 56 (1979) 371
Stability, equilibrium and metastability in statisical mechanics, G.L. Sewell 57 (1980) 307
Statistical mechanics of simple Coulomb systems, M. Baus and J.-P. Hansen 59 (1980) 1
Phase transitions in two dimensions, M.N. Barber 59 (1980) 375
Path integrals in quantum theory: an outlook of basic concepts, M.S. Marinov 60 (1980) 1
Theory of photoelectron counting statistics: an essay, R. Barakat and J. Blake 60 (1980) 225
Random motion and Brownian rotation, G. Wyllie 61 (1980) 327
Highlights of 25 years of physics at CERN, L. van Hove and M. Jacob 62 (1980) 1
Principle of maximum entropy and irreversible processes, W.T. Grandy Jr. 62 (1980) 175
Stochastic measures in nonequilibrium thermodynamics, F. Schlögl 62 (1980) 267
Stochastic gravitational fluctuations in a self-consistent mean field theory, H.E. Kandrup 63 (1980) 1
Classification in bifurcation theory and reaction-diffusion systems, Y. Shiffmann 64 (1980) 87
Dynamics and ergodicity of the infinite harmonic crystal, J.L. van Hemmen 65 (1980) 43
Maximal hypersurfaces and foliations of constant mean curvature in general relativity, J.E. Marsden and F.J. Tipler 66 (1980) 109
The CERN muon $(g-2)$ experiments, F. Combley, F.J.M. Farley and E. Picasso 68 (1981) 93
Perturbation series at large orders in Quantum Mechanics and Field Theories: Application to the problem of resummation, J. Zinn-Justin 70 (1981) 109
The theory of $\mathscr{H}$-space, M. Ko, M. Ludvigsen, E.T. Newman and K.P. Tod 71 (1981) 51
Classical integrable finite-dimensional systems related to Lie algebras, M.A. Olshanetsky and A.M. Perelomov 71 (1981) 313
Symbolic dynamics and hyperbolic dynamic systems, V.M. Alekseev and M.V. Yakobson 75 (1981) 287
Survey of cosmological models with gravitational, scalar and electromagnetic waves, M. Carmeli, Ch. Charach and S. Malin 76 (1981) 79
Basic theory of the isochronous storage ring laser, D.A.G. Deacon 76 (1981) 349
New stochastic methods in physics, C. DeWitt-Morette and K.D. Elworthy (editors) 77 (1981) 121
A stepping stone to stochastic analysis, C. DeWitt-Morette and K.D. Elworthy 77 (1981) 125
Topics in quantum probability, L. Accardi 77 (1981) 169
Stochastic methods in quantum field theory and hydrodynamics, S. Albeverio and R. Høegh-Krohn 77 (1981) 193
Qualitative theory of stochastic systems and its applications in physics, L. Arnold 77 (1981) 215
Generalized Poisson processes in quantum mechanics and field theory, Ph. Combe, R. Rodriguez, R. Høegh-Krohn, M. Sirugue and M. Sirugue-Collin 77 (1981) 221
The polaron problem and large deviations, M.D. Donsker and S.R.S. Varadhan 77 (1981) 235
Markov processes, random fields and Dirichlet spaces, E.B. Dynkin 77 (1981) 239
Rotational Brownian motion of an asymmetric top, G.W. Ford 77 (1981) 249
On a stochastic calculus related to Dirichlet forms and distorted Brownian motions, M. Fukushima 77 (1981) 255
Structural aspects of stochastic mechanics and stochastic field theory, F. Guerra 77 (1981) 263
The semiclassical limit of quantum mechanics: A qualitative theory via stochastic mechanics, G. Jona-Lasinio, F. Martinelli and E. Scoppola 77 (1981) 313
Stochastic processes associated with quantum systems, A. Klein 77 (1981) 329
Quantum stochastic processes I, J.T. Lewis 77 (1981) 339

Quantum stochastic processes II, A. Frigerio 77 (1981) 351
A stochastic process with metastability and complex free energy, L.S. Schulman 77 (1981) 359
Energy forms, Schroedinger theory, processes, L. Streit 77 (1981) 363
Nonlinear model-Boltzmann equations and exact solutions, M.H. Ernst 78 (1981) 1
Lie transform perturbation theory for Hamiltonian systems, J.R. Cary 79 (1981) 129
Classical and quantum mechanics of the damped harmonic oscillator, H. Dekker 80 (1981) 1
Stochasticity in quantum systems, G.M. Zaslavsky 80 (1981) 157
The Aharonov–Bohm effect: why it cannot be eliminated from quantum mechanics, M. Peshkin 80 (1981) 375
Non-linear dynamics and geometrical properties of localized wave structures, A.B. Shvartsburg 83 (1982) 107
Physics of ionizing shock waves in magnetic fields, M.A. Liberman and A.L. Velikovich 84 (1982) 1
Chaotic behaviour in general relativity, J.D. Barrow 85 (1982) 1
Searches of fractionally charged particles in matter with the magnetic levitation technique, M. Marinelli and G. Morpurgo 85 (1982) 161
Chaotic response of nonlinear oscillators, K. Tomita 86 (1982) 113
Asymptotic solutions and spectral theory of linear wave equations, J.A. Adam 86 (1982) 217
Stochastic processes: Time evolution, symmetries and linear response, P. Hänggi and H. Thomas 88 (1982) 207
Introduction to real-space renormalization-group methods in critical and chaotic phenomena, B. Hu 91 (1982) 233
Fluctuations and simple chaotic dynamics, J.P. Crutchfield, J.D. Farmer and B.A. Huberman 92 (1982) 45
Holography, coherent light amplification and optical phase conjugation with photorefractive materials, P. Günter 93 (1982) 199
Quantum integrable systems related to Lie algebras, M.A. Olshanetsky and A.M. Perelomov 94 (1983) 313
Diffusion and the physics of chemoreception, F.W. Wiegel 95 (1983) 283
Pruned quantum theory, H.J. Groenewold 98 (1983) 343
Quantal bookkeeping of samples and locality, H.J. Groenewold 98 (1983) 367
A CP^5 calculus for space-time fields, L.P. Hughston and T.R. Hurd 100 (1983) 273
Canonical theories of Lagrangian dynamical systems in physics, H.A. Kastrup 101 (1983) 1
Statistical quantum electrodynamics of resonant atoms, J.T. Manassah 101 (1983) 359
Non-linear effects in quasi-one-dimensional models of condensed matter theory, V.G. Makhankov and V.K. Fedyanin 104 (1984) 1
Wigner's function and other distribution functions in mock phase spaces, N.L. Balazs and B.K. Jennings 104 (1984) 347
Auditory physics. Physical principles in hearing theory. II, E. de Boer 105 (1984) 141
Distribution functions in physics: Fundamentals, M. Hillery, R.F. O'Connell, M.O. Scully and E.P. Wigner 106 (1984) 121
On the variational methods for bound-state and scattering problems II, M.A. Abdel-Raouf 108 (1984) 1
Semiclassical treatments of non-radiative processes, A. Ranfagni, D. Mugnai and R. Englman 108 (1984) 165
Kac–Moody algebras and exact solvability in hadronic physics, L. Dolan 109 (1984) 1
SL(2, C) gauge theory of gravitation: conservation laws, N. Nissani 109 (1984) 95
Rydberg series of alkaline-earth atoms Ca through Ba. The interplay of laser spectroscopy and multichannel quantum defect analysis, M. Aymar 110 (1984) 163
Nonseparability and the tentative descriptions of reality, B. D'Espagnat 110 (1984) 201

From the discovery of the neutron to the discovery of nuclear fission, E. Amaldi 111 (1984) 1
Polarized beams in high energy storage rings, B.W. Montague 113 (1984) 1
The confrontation between general relativity and experiment: an update, C.M. Will 113 (1984) 345
Magnetic superconductors: Model theories and experimental properties of rare-earth compounds, K.N. Shrivastava and K.P. Sinha 115 (1984) 93
Equilibrium and nonequilibrium formalisms made unified, K.C. Chou, Z.B. Su, B.L. Hao and L. Yu 118 (1985) 1
Supernarrow saturated absorption resonances, V.P. Chebotayev 119 (1985) 75
Charge density wave conduction: A novel collective transport phenomenon in solids, G. Grüner and A. Zettl 119 (1985) 117
Stochasticity in classical Hamiltonian systems: Universal aspects, D.F. Escande 121 (1985) 165
Elimination of fast variables, N.G. van Kampen 124 (1985) 69
Monte Carlo simulation of quantum statistical lattice models, H. De Raedt and A. Lagendijk 127 (1985) 233
The elusive quantal individual, H.J. Groenewold 127 (1985) 379
Scattering of atoms by light, A.P. Kazantsev, G.A. Ryabenko, G.I. Surdutovich and V.P. Yakovlev 129 (1985) 75
Hamiltonian approach to the description of non-linear plasma phenomena, V.E. Zakharov, S.L. Musher and A.M. Rubenchik 129 (1985) 285
Dissipation in many-body systems: A geometric approach based on information theory, R. Balian, Y. Alhassid and H. Reinhardt 131 (1986) 1
A review of extended probabilities, W. Mückenheim 133 (1986) 337
Physics of open systems, K.H. Li 134 (1986) 1
Essays in mathematical physics, in memoriam V. Glaser, A. Martin and M. Jacob (editors) 134 (1986) 273
Editorial, A. Martin and M. Jacob 134 (1986) 277
Bounds to Green functions and lower bounds to the spectrum of a positive Hamiltonian, R.A. Bertlmann 134 (1986) 279
New solitons connected to the Dirac equation, H. Grosse 134 (1986) 297
V. Glaser's results on the wave function at the origin and the semi-classical limit, A. Martin 134 (1986) 305
Electromagnetic properties of the Ω^--particle and the fine structure of Ω^--hyperonic atoms, R.M. Ryndin 134 (1986) 317
Derivation of asymptotic crossing domains for multiparticle processes in axiomatic quantum field theory: A general approach and a complete proof for $2 \rightarrow 3$ particle processes, J. Bros 134 (1986) 325
An unpublished work by V. Glaser: "The Polynomial Map", R. Stora 134 (1986) 391
Quantum mechanical pure states with Gaussian wave functions, B.L. Schumaker 135 (1986) 317
Quasiclassical approach to the virial theorem and to the evaluation of the ground-state energy, E. Papp 136 (1986) 103
Geometrical cluster growth models and kinetic gelation, H.J. Hermann 136 (1986) 153
New avenues in quantum theory and general relativity. Proceedings of the Meeting, organised by The Istituto Italiano per gli Studi Filosofici at Amalfi, Italy, May 1984, E.R. Caianiello (editor) 137 (1986) 1
Introductory remarks, J.S. Bell 137 (1986) 5
Quantum field theory at positive temperature, L. Van Hove 137 (1986) 11
Topics from quantum geometry: Substructure of spinor space, geodesics and quantum oscillators, E.R. Caianiello 137 (1986) 21
On broken symmetries and gravity, T. Regge 137 (1986) 31

Pure spinors and quadric Grassmanians, P. Budinich 137 (1986) 35
Quantum field theory without observers, J.S. Bell 137 (1986) 49
Nicolai mapping and stochastic identities in supersymmetric field theories, V. de Alfaro, S. Fubini, G. Furlan and G. Veneziano 137 (1986) 55
Numerical calculations in quantum field theory, C. Rebbi 137 (1986) 63
A preon model of quarks and leptons, R.E. Marshak 137 (1986) 73
Perturbative expansions at finite temperature, M. Marinaro 137 (1986) 81
Unfolding, fibre bundles, color breaking and gauge invariance, E.C.G. Sudarshan 137 (1986) 93
Gravity theories in more than four dimensions, B. Zumino 137 (1986) 109
Feynman path integrals: Some exact results and applications, D.C. Khandekar and S.V. Lawande 137 (1986) 115
Interpreting the wave function of the Universe, F.J. Tipler 137 (1986) 231
The semiclassical evolution of wave packets, R.G. Littlejohn 138 (1986) 193
Asymptotic stability of Bianchi type universes, J.D. Barrow and D.H. Sonoda 139 (1986) 1
Critical layer singularities and complex eigenvalues in some differential equations of mathematical physics, J.A. Adam 142 (1986) 263
Chaos on the pseudosphere, N.L. Balazs and A. Voros 143 (1986) 109
An ontological basis for the quantum theory, D. Bohm, B.J. Hiley and P.N. Kaloyerou 144 (1987) 321
Real- and imaginary-time field theory at finite temperature and density, N.P. Landsman and Ch.G. van Weert 145 (1987) 141
Direct methods for the search of the second invariant, J. Hietarinta 147 (1987) 87
The classical equations of motion for a spinning point particle with charge and magnetic moment, E.G.P. Rowe and G.T. Rowe 149 (1987) 287
Monochromators for X-ray synchrotron radiation, R. Caciuffo, S. Melone, F. Rustichelli and A. Boeuf 152 (1987) 1
Temperature, periodicity and horizons, S.A. Fulling and S.N.M. Ruijsenaars 152 (1987) 135
The properties and the nature of ball lightning, B.M. Smirnov 152 (1987) 177
Relevance of classical chaos in quantum mechanics: The hydrogen atom in a monochromatic field, G. Casati, B.V. Chirikov, D.L. Shepelyansky and I. Guarneri 154 (1987) 77
Scalar time parametrization of relativistic quantum mechanics: The covariant Schrödinger formalism, A. Kyprianidis 155 (1987) 1
Unstable quasi-gaseous media, B.A. Trubnikov and S.K. Zhdanov 155 (1987) 137
What price locality?, H.J. Groenewold 155 (1987) 231
Bilocality, H.J. Groenewold 155 (1987) 251
Variational classical electrodynamics, B. Chakraborty 156 (1987) 1
Anomalous scaling laws in multifractal objects, G. Paladin and A. Vulpiani 156 (1987) 147
Dynamics of solitons under random perturbations, F.G. Bass, Yu.S. Kivshar, V.V. Konotop and Yu.A. Sinitsyn 157 (1988) 63
Phase-space representations of wave equations with applications to the eikonal approximation for short-wavelength waves, S.W. McDonald 158 (1988) 337
Photoacoustic and related photothermal techniques, H. Vargas and L.C.M. Miranda 161 (1988) 43
Quasiclassical symmetry properties II, E. Papp 161 (1988) 171
Quantum mechanics of classically non-integrable systems, B. Eckhardt 163 (1988) 205
Unified regularization of Bianchi cosmology, K. Rosquist and R.T. Jantzen 166 (1988) 89
Quantum nonlinear Schrödinger equation: Two solutions, E. Gutkin 167 (1988) 1
Ultra-high pressure apparatus, F.P. Bundy 167 (1988) 133
Quantum Brownian motion: the functional integral approach, H. Grabert, P. Schramm and G.-L. Ingold 168 (1988) 115

Fokker–Planck equation for interacting waves. Dispersion law renormalization and wave turbulence, S.J. Putterman and P.H. Roberts 168 (1988) 209
Spatial spin resonance of polarized neutrons. A tunable slow neutron filter, M.M. Agamalyan, G.M. Drabkin and V.I. Sbitnev 168 (1988) 265
Light-induced drift of Na atoms, H.G.C. Werij and J.P. Woerdman 169 (1988) 145
Causal interpretation of a system of two spin-1/2 particles, P.R. Holland 169 (1988) 293
Quantum electromagnetics of an electron near mirrors, G. Barton and N.S.J. Fawcett 170 (1988) 1
Fluctuations in nonequilibrium fluids, R. Schmitz 171 (1988) 1
Path integral formulation of quantum electrodynamics from classical particle trajectories, A.O. Barut and I.H. Duru 172 (1989) 1
Non-locality and locality in the stochastic interpretation of quantum mechanics, D. Bohm and B.J. Hiley 172 (1989) 93
Symmetry and exact solutions of nonlinear spinor equations, W.I. Fushchich and R.Z. Zhdanov 172 (1989) 123
Correlation functions of some continuous model systems and description of phase transitions, N.S. Gonchar 172 (1989) 175
Nonstationary dissipative structures and diffusion-induced chaos in nonlinear media, T.S. Akhromeyeva, S.P. Kurdyumov, G.G. Malinetskii and A.A. Samarskii 176 (1989) 189
Dynamical chaos of solitons and nonlinear periodic waves, F.Kh. Abdullaev 179 (1989) 1
The Painlevé property and singularity analysis of integrable and non-integrable systems, A. Ramani, B. Grammaticos and T. Bountis 180 (1989) 159
Exactly solvable models and knot theory, M. Wadati, T. Deguchi and Y. Akutsu 180 (1989) 247
Radiating spherical collapse, W.B. Bonnor, A.K.G. de Oliveira and N.O. Santos 181 (1989) 269
Interferometric detection of gravitational waves, A. Giazotto 182 (1989) 365
Application of catastrophe theory to molecules and solitons, F.V. Kusmartsev 183 (1989) 1
The energetics of black holes in electromagnetic fields by the Penrose process, S.M. Wagh and N. Dadhich 183 (1989) 137
Common trends in statistical physics and field theory, Proc. Cargèse Advanced Research Workshop, C. Itzykson, S. Kirkpatrick, G. Parisi, N. Sourlas and M.A. Virasoro (editors) 184 (1989) 99
Random surfaces and the statistics of membranes, F. David 184 (1989) 221
Two-dimensional fractal geometry, critical phenomena and conformal invariance, B. Duplantier 184 (1989) 229
Diffusion-controlled interface dynamics, V. Hakim 184 (1989) 259
An introduction to the statistical mechanics of fluctuating membranes, S. Leibler 184 (1989) 265
Fluctuations in solid and hexatic membranes, L. Peliti 184 (1989) 271
Theoretical concepts for fractal growth, L. Pietronero 184 (1989) 273
Selected topics in fluctuational kinetics of reactions, A.S. Mikhailov 184 (1989) 307
An enlarged phase space for finite-dimensional constrained systems, unifying their Lagrangian phase- and velocity-space descriptions, L. Lusanna 185 (1990) 1
Large-N expansions in quantum mechanics, atomic physics and some O(N) invariant systems, A. Chatterjee 186 (1990) 249
Dark matter detection, P.F. Smith and J.D. Lewin 187 (1990) 203
Hamiltonian chaos in nonlinear optical polarization dynamics, D. David, D.D. Holm and M.V. Tratnik 187 (1990) 281
The properties of fractal clusters, B.M. Smirnov 188 (1990) 1
The inverse problem in the calculus of variations and the geometry of the tangent bundle, G. Morandi, C. Ferrario, G. Lo Vecchio, G. Marmo and C. Rubano 188 (1990) 147
Statistical mechanics of gravitating systems, T. Padmanabhan 188 (1990) 285

Bifurcation and symmetry breaking, G. Gaeta 189 (1990) 1
Introduction to multifractals in dynamical systems theory and fully developed fluid turbulence, J.L. McCauley 189 (1990) 225
Multiple reflection from surface X-ray optics, M.A. Kumakhov and F.F. Komarov 191 (1990) 289
A survey on the maximum entropy method and parameter spectral estimation, D.M. Lin and E.K. Wong 193 (1990) 41
Poincaré, celestial mechanics, dynamical-systems theory and "chaos", P. Holmes 193 (1990) 137
Stability of coupled rigid body and geometrically exact rods: block diagonalization and the energy–momentum method, J.C. Simo, T.A. Posbergh and J.E. Marsden 193 (1990) 279
Anomalous diffusion in disordered media: statistical mechanisms, models and physical applications, J.P. Bouchaud and A. Georges 195 (1990) 127
Harmonic analysis and propagators on homogeneous spaces, R. Camporesi 196 (1990) 1
Electron cooling: theory, experiment, application, H. Poth 196 (1990) 135
Simple models of quantum chaos: spectrum and eigenfunctions, F.M. Izrailev 196 (1990) 299
Flow measurements by NMR, A. Caprihan and E. Fukushima 198 (1990) 195

The physics of elementary particles and fields

Broken scale invariance in particle physics, P. Carruthers 1 (1971) 1
Strong interactions dynamics with Padé approximants, J. Zinn-Justin 1 (1971) 55
Regge theory and particle physics, P.D.B. Collins 1 (1971) 103
The operator approach to dual multiparticle theory, V. Alessandrini, D. Amati, M. Le Bellac and D. Olive 1 (1971) 269
Particle production in high energy hadron collisions, L. Van Hove 1 (1971) 347
Theoretical models of diffraction scattering, F. Zachariasen 2 (1971) 1
Meson–meson scattering, J.L. Petersen 2 (1971) 155
The possible role of elementary particle physics in cosmology, R. Omnès 3 (1972) 1
The proton–neutron mass difference problem and related topics, A. Zee 3 (1972) 127
Recent developments in the comparison between theory and experiments in quantum electrodynamics, B.E. Lautrup, A. Peterman and E. de Rafael 3 (1972) 193
Neutrino reactions at accelerator energies, C.H. Llewellyn Smith 3 (1972) 261
Many-particle production, D. Horn 4 (1972) 1
Photoproduction and electroproduction, F.J. Gilman 4 (1972) 95
Leptonic decays of hadrons, L.-M. Chounet, J.-M. Gaillard and M.K. Gaillard 4 (1972) 199
Models for hadronic and leptonic processes at high energy, P.V. Landshoff and J.C. Polkinghorne 5 (1972) 1
From soft to real pions in nuclear physics, M. Ericson and M. Rho 5 (1972) 57
High energy theorems for strong interactions and their comparison with experimental data, S.M. Roy 5 (1972) 125
Multiple production of hadrons at cosmic ray energies (experimental results and theoretical concepts), E.L. Feinberg 5 (1972) 237
Parity-violating nuclear interactions and models of the weak Hamiltonian, E. Fischbach and D. Tadić 6 (1973) 123
The parton picture of elementary particles, J. Kogut and L. Susskind 8 (1973) 75
Quarks for pedestrians, H.J. Lipkin 8 (1973) 173
Dual resonance theory, J.H. Schwarz 8 (1973) 269
Gauge theories, E.S. Abers and B.W. Lee 9 (1973) 1
CP nonconservation and spontaneous symmetry breaking, T.D. Lee 9 (1974) 143

An introduction to dual models of strong interactions and their physical motivations, G. Veneziano 9 (1974) 199
Experimental results on strong interactions in the NAL hydrogen bubble chamber, J. Whitmore 10 (1974) 273
Weak and electromagnetic form factors of hadrons, M. Gourdin 11 (1974) 29
High-energy hadron production and inclusive reactions, R. Slansky 11 (1974) 99
The classification and decays of resonant particles, J.L. Rosner 11 (1974) 189
Dual models and relativistic quantum strings, C. Rebbi 12 (1974) 1
The renormalization group and the ε expansion, K.G. Wilson and J. Kogut 12 (1974) 75
Light cone and short distances, Y. Frishman 13 (1974) 1
Hadronic aspects of photon–nucleus interactions, W. Weise 13 (1974) 53
Dual-resonance models, S. Mandelstam 13 (1974) 259
The muon $(g-2)$ precession experiments: past, present and future, F. Combley and E. Picasso 14 (1974) 1
Asymptotic freedom: an approach to strong interactions, H.D. Politzer 14 (1974) 129
Regge theory for multiparticle amplitudes, R.C. Brower, C.E. DeTar and J.H. Weis 14 (1974) 257
The two-photon particle production mechanism. Physical problems. Applications. Equivalent photon approximation, V.M. Budnev, I.F. Ginzburg, G.V. Meledin and V.G. Serbo 15 (1975) 181
Departures from chiral symmetry, H. Pagels 16 (1975) 219
Physics (and technique) of gas jet experiments, A.C. Melissinos and S.L. Olsen 17 (1975) 77
Analytic extrapolation techniques and stability problems in dispersion relation theory, S. Ciulli, C. Pomponiu and I. Sabba-Stefănescu 17 (1975) 133
The multiperipheral cluster theory and its comparison with experiment, I.M. Dremin and A.M. Dunaevskii 18 (1975) 159
Analyticity in hadron–nuclei binary reactions, S. Dubnička and O. Dumbrajs 19 (1975) 141
A survey of the Fermilab research program, G. Giacomelli, A.F. Greene and J.R. Sanford 19 (1975) 169
Electron–positron annihilation above 2 GeV and the new particles, G.J. Feldman and M.L. Perl 19 (1975) 233
Quantum field theory in curved spacetime, B.S. DeWitt 19 (1975) 295
Some recent developments in cosmic rays, A.M. Hillas 20 (1975) 59
Hadronic interactions and cosmic radiation at energies above 10^5 GeV, C.B.A. McCusker 20 (1975) 229
Delbrück scattering, P. Papatzacos and K. Mork 21 (1975) 81
Reggeon field theory: formulation and use, H.D.I. Abarbanel, J.D. Bronzan, R.L. Sugar and A.R. White 21 (1975) 119
Some non-perturbative semi-classical methods in quantum field theory (a pedagogical review), R. Rajaraman 21 (1975) 227
Inclusive study of high-energy multiparticle production and two-body correlations, L. Foà 22 (1975) 1
Large transverse momentum processes, D. Sivers, S.J. Brodsky and R. Blankenbecler 23 (1976) 1
Total cross sections and elastic scattering at high energies, G. Giacomelli 23 (1976) 123
Extended systems in field theory. Proceedings of the meeting held at Ecole Normale Supérieure, Paris, June 16–21, 1975, J.L. Gervais and A. Neveu (organizers) 23 (1976) 237
Introduction, J.L. Gervais and A. Neveu 23 (1976) 240
Vortices and quark confinement in non-Abelian gauge theories, S. Mandelstam 23 (1976) 245
Magnetic and electric confinement of quarks, Y. Nambu 23 (1976) 250
Examples of four-dimensional soliton solutions and abnormal nuclear states, T.D. Lee 23 (1976) 254

Classical solution in the massive Thirring model, S.-J. Chang 23 (1976) 259
Semiclassical quantization methods in field theory, A. Neveu 23 (1976) 265
The quantum theory of solitons and other non-linear classical waves, R. Jackiw 23 (1976) 273
Collective coordinate method for quantization of extended systems, J.L. Gervais, A. Jevicki and B. Sakita 23 (1976) 281
Quantum expansion of soliton solutions, N.H. Christ 23 (1976) 294
Hartree-type approximation applied to a ϕ^4 field theory, S.-J. Chang 23 (1976) 301
Soliton operators for the quantized sine-Gordon equation, S. Mandelstam 23 (1976) 307
Classical aspects and fluctuation-behaviour of two dimensional models in statistical mechanics and many body physics, B. Schroer 23 (1976) 314
Quarks on a lattice, or, the colored string model, K.G. Wilson 23 (1976) 331
New ideas about confinement, L. Susskind and J. Kogut 23 (1976) 348
Gauge fields on a lattice, C. Itzykson 23 (1976) 368
Infrared problems in quantum electrodynamics, N. Papanicolaou 24 (1976) 229
Lepton production in hadron collisions, L.M. Lederman 26 (1976) 149
Pion condensates, G.E. Brown and W. Weise 27 (1976) 1
Multiparticle production in the Fermilab bubble chambers, J. Whitmore 27 (1976) 187
Gribov's Reggeon calculus: its physical basis and implications, M. Baker and K.A. Ter-Martirosyan 28 (1976) 1
A survey of the high energy physics program at Brookhaven National Laboratory, H. Hahn, R.R. Rau and P. Wanderer 29 (1977) 85
Nuclear muon capture, N.C. Mukhopadhyay 30 (1977) 1
The physics of electron–positron colliding beams, J.P. Perez-y-Jorba and F.M. Renard 31 (1977) 1
Phenomenological duality, M. Fukugita and K. Igi 31 (1977) 237
Color models of hadrons, O.W. Greenberg and C.A. Nelson 32 (1977) 69
Supersymmetry, P. Fayet and S. Ferrara 32 (1977) 249
Recent results in electron–positron annihilation above 2 GeV, G.J. Feldman and M.L. Perl 33 (1977) 285
What can low-energy nuclear physics tell us about elementary particles and quarks?, L.H. Ryder 34 (1977) 55
Regge phenomenology, A.C. Irving and R.P. Worden 34 (1977) 117
Dynamics of classical solitons (in non-integrable systems), V.G. Makhankov 35 (1978) 1
The physics of nucleon–antinucleon systems, I.S. Shapiro 35 (1978) 129
The method of Boson expansions in quantum theory, P. Garbaczewski 36 (1978) 65
Quantum chromodynamics, W. Marciano and H. Pagels 36 (1978) 137
Recent developments in Reggeon field theory, M. Moshe 37 (1978) 255
Lattice gauge fields, J.M. Drouffe and C. Itzykson 38 (1978) 133
Fermions and bosons interacting with arbitrarily strong external fields, J. Rafelski, L.P. Fulcher and A. Klein 38 (1978) 227
Neutrino physics with Gargamelle, P. Musset and J.-P. Vialle 39 (1978) 1
Experimental aspects of high energy neutrino physics, B.C. Barish 39 (1978) 279
The quark bag model, P. Hasenfratz and J. Kuti 40 (1978) 75
Charmonium and gluons, V.A. Novikov, L.B. Okun, M.A. Shifman, A.I. Vainshtein, M.B. Voloshin and V.I. Zakharov 41 (1978) 1
Lepton mixing and neutrino oscillations, S.M. Bilenky and B. Pontecorvo 41 (1978) 225
Dual topological unitarization: an ordered approach to hadron theory, G.F. Chew and C. Rosenzweig 41 (1978) 263
Quantum theory of solitons, L.D. Faddeev and V.E. Korepin 42 (1978) 1
Quarks and leptons, H. Harari 42 (1978) 235

Dipole moments and spin rotations of the neutron, N.F. Ramsey 43 (1978) 409
High energy antiparticle–particle reaction differences and annihilations, J.G. Rushbrooke and B.R. Webber 44 (1978) 1
Muon physics, F. Scheck 44 (1978) 187
Recent developments in conformal invariant quantum field theory, E.S. Fradkin and M.Ya. Palchik 44 (1978) 249
Lepton and photon production in hadron collisions, N.S. Craigie 47 (1978) 1
Large transverse momentum and jet studies, M. Jacob and P.V. Landshoff 48 (1978) 285
Non-perturbative aspects in quantum field theory, E. Brézin and J.L. Gervais (editors) 49 (1979) 91
Self-dual solutions to Euclidean Yang–Mills equations, E. Corrigan 49 (1979) 95
An introduction to the twistor programme, J.L. Madore, J.L. Richard and R. Stora 49 (1979) 113
Collective coordinates with non-trivial dynamics, J.L. Gervais 49 (1979) 131
A theory of the strong interactions, D.J. Gross 49 (1979) 143
Magnetic monopoles, D. Olive 49 (1979) 165
Dynamical and topological considerations on quark confinement, F. Englert and P. Windey 49 (1979) 173
Difficulties in fixing the gauge in non-Abelian gauge theories, S. Sciuto 49 (1979) 181
Indeterminate-mass particles, B.M. McCoy and T.T. Wu 49 (1979) 193
Duality for discrete lattice gauge fields, C. Itzykson 49 (1979) 199
Large-order estimates in perturbation theory, J. Zinn-Justin 49 (1979) 205
The Borel transform and the renormalization group, G. Parisi 49 (1979) 215
Planar diagrams, E. Brézin 49 (1979) 221
Exact S-matrices and form factors in $1+1$ dimensional field theoretic models with soliton behaviour, M. Karowski 49 (1979) 229
Topology and higher symmetries of the two-dimensional non-linear σ-model, A. D'Adda, M. Lüscher and P. Di Vecchia 49 (1979) 239
Two-dimensional Yang–Mills theory in the leading $1/N$ expansion, T.T. Wu 49 (1979) 245
Superfluidity and the two-dimensional XY model, D.R. Nelson 49 (1979) 255
Bosonized fermions in three dimensions, A. Luther 49 (1979) 261
Symmetry and topology concepts for spin glasses and other glasses, G. Toulouse 49 (1979) 267
Neutral current effects in nuclei, T.W. Donnelly and R.D. Peccei 50 (1979) 1
Diffractive production mechanisms, A.B. Kaidalov 50 (1979) 157
Path integration in non-relativistic quantum mechanics, C. DeWitt-Morette, A. Maheshwari and B. Nelson 50 (1979) 255
Relativistic many-body theory, quantum chromodynamics and neutron stars/supernova, P.D. Morley and M.B. Kislinger 51 (1979) 63
Renormalization group and the deep structure of the proton, A. Peterman 53 (1979) 157
Experiments with intense secondary beams of radioactive ions, H.L. Ravn 54 (1979) 201
Muon scattering at Fermilab, W.R. Francis and T.B.W. Kirk 54 (1979) 307
Physics at the CERN-ISR, G. Giacomelli and M. Jacob 55 (1979) 1
A practical guide to the hypernetted chain method applied to Fermi and Bose systems, G. Ripka 56 (1979) 1
Quantum mechanics with applications to quarkonium, C. Quigg and J.L. Rosner 56 (1979) 167
A semiclassical theory of elastic scattering and direct-reactions: Time-independent formulation in three spatial dimensions with complex trajectories, B.J.B. Crowley 57 (1980) 47
Physics and technique of stochastic cooling, D. Möhl, G. Petrucci, L. Thorndahl and S. van der Meer 58 (1980) 73
Hard processes in quantum chromodynamics, Yu.L. Dokshitzer, D.I. Dyakonov and S.I. Troyan 58 (1980) 269

Polarization phenomena in hadronic reactions, C. Bourrely, E. Leader and J. Soffer 59 (1980) 95
Exact results on potential models for quarkonium systems, H. Grosse and A. Martin 60 (1980) 341
Quantum chromodynamics and the theory of superdense matter, E.V. Shuryak 61 (1980) 71
Highlights of 25 years of physics at CERN, L. van Hove and M. Jacob 62 (1980) 1
Stochastic gravitational fluctuations in a self-consistent mean field theory, H.E. Kandrup 63 (1980) 1
Baryonium physics, L. Montanet, G.C. Rossi and G. Veneziano 63 (1980) 149
Renormalization techniques for quantum spin systems. Ground-state energies, W.J. Caspers 63 (1980) 223
Physics with high energy electron–positron colliding beams with the MARK J detector, MARK J Collaboration: D.P. Barber, U. Becker, H. Benda, A. Böhm, J.G. Branson, J. Bron, D. Buikman, J.D. Burger, C.C. Chang, H.S. Chen, M. Chen, C.P. Cheng, Y.S. Chu, R. Clare, P. Duinker, G.Y. Fang, H. Fesefeldt, D. Fong, M. Fukushima, J.C. Guo, A. Hariri, G. Herten, M.C. Ho, H.K. Hsu, R.W. Kadel, W. Krenz, J. Li, Q.Z. Li, M. Lu, D. Luckey, C.M. Ma, D.A. Ma, G.G.G. Massaro, T. Matsuda, H. Newman, M. Pohl, F.P. Poschmann, J.P. Revol, M. Rohde, H. Rykaczewski, K. Sinram, H.W. Tang, L.G. Tang, S.C.C. Ting, K.L. Tung, F. Vannucci, X.R. Wang, P.S. Wei, M. White, G.H. Wu, T.W. Wu, J.P. Xi, P.C. Yang, C.C. Yu, X.H. Yu, N.L. Zhang and R.Y. Zhu 63 (1980) 337
Reviews of experimental results from the polarized-beam program at the Argonne ZGS, A. Yokosawa 64 (1980) 47
Nuclear physics with synchrotron radiation, R. Chrien, A. Hofmann and A. Molinari 64 (1980) 249
Hadronic interactions of high energy cosmic-ray observed by emulsion chambers, C.M.G. Lattes, Y. Fujimoto and S. Hasegawa 65 (1980) 151
Maximal hypersurfaces and foliations of constant mean curvature in general relativity, J.E. Marsden and F.J. Tipler 66 (1980) 109
Gravitation, gauge theories and differential geometry, T. Eguchi, P.B. Gilkey and A.J. Hanson 66 (1980) 213
Common trends in particle and condensed matter physics. Proceedings of Les Houches Winter Advanced Study Institute, February 1980, E. Brézin, J.-L. Gervais and G. Toulouse (editors) 67 (1980) 1
Introduction to localization, D.J. Thouless 67 (1980) 5
Conductivity scaling and localization, E. Abrahams 67 (1980) 9
Disordered electronic system as a model of interacting matrices, F. Wegner 67 (1980) 15
Mean field theory for spin glasses, G. Parisi 67 (1980) 25
The random energy model, B. Derrida 67 (1980) 29
Towards a mean field theory of spin glasses: The TAP route revisited, C. De Dominicis 67 (1980) 37
On the connection between spin glasses and gauge field theories, G. Toulouse and J. Vannimenus 67 (1980) 47
Monte Carlo simulations of lattice gauge theories, C. Rebbi 67 (1980) 55
Large dimension expansions and transition patterns in lattice gauge theories, J.-M. Drouffe 67 (1980) 63
Progress in lattice gauge theory, J.B. Kogut 67 (1980) 67
Phase structure of the Z(2) gauge and matter theory, D. Horn 67 (1980) 103
General introduction to confinement, S. Mandelstam 67 (1980) 109
A simple picture of the weak-to-strong coupling transition in quantum chromodynamics, C.G. Callan Jr. 67 (1980) 123
Quantum fluctuations in a multi-instanton background, B.A. Berg 67 (1980) 133
Some comments on the crossover between strong and weak coupling in SU(2) pure Yang–Mills theory, J. Fröhlich 67 (1980) 137

String dynamics in Q.C.D., J.-L. Gervais and A. Neveu 67 (1980) 151
Dual models and strings: the critical dimension, C.B. Thorn 67 (1980) 163
Duality and finite size effects in six vertex models, C.B. Thorn 67 (1980) 171
Scaling at a bifurcation point, M. Nauenberg and D. Scalapino 67 (1980) 177
Some implications of a cosmological phase transition, T.W.B. Kibble 67 (1980) 183
Regge phenomenology of inclusive reactions, S.N. Ganguli and D.P. Roy 67 (1980) 201
The CERN muon $(g-2)$ experiments, F. Combley, F.J.M. Farley and E. Picasso 68 (1981) 93
Supergravity, P. van Nieuwenhuizen 68 (1981) 189
Perturbative quantum chromodynamics, E. Reya 69 (1981) 195
Perturbation series at large orders in Quantum Mechanics and Field Theories: Application to the problem of resummation, J. Zinn-Justin 70 (1981) 109
Lepton pair production in hadron collisions, R. Stroynowski 71 (1981) 1
Classical integrable finite-dimensional systems related to Lie algebras, M.A. Olshanetsky and A.M. Perelomov 71 (1981) 313
Grand unified theories and proton decay, P. Langacker 72 (1981) 185
Flavordynamics of quarks and leptons, H. Fritzsch and P. Minkowski 73 (1981) 67
Perturbative QCD at high energies, A.H. Mueller 73 (1981) 237
Diffraction of subnuclear waves, G. Alberi and G. Goggi 74 (1981) 1
Technicolour, E. Farhi and L. Susskind 74 (1981) 277
The properties of charmed particles, G.H. Trilling 75 (1981) 57
Geometric methods in classical field theory, J. Madore 75 (1981) 125
Theories of quark confinement, M. Bander 75 (1981) 205
Symmetries in perturbative quantum field theory, O. Piguet and A. Rouet 76 (1981) 1
General laws of hadron scattering at very high energies, J. Fischer 76 (1981) 157
High-energy phenomena, short-range nuclear structure and QCD, L.L. Frankfurt and M.I. Strikman 76 (1981) 215
Inelastic processes in high energy quantum electrodynamics, V.N. Baier, V.S. Fadin, V.A. Khoze and E.A. Kuraev 78 (1981) 293
Group theory for unified model building, R. Slansky 79 (1981) 1
On classical Yang–Mills fields, Gu Chaohao 80 (1981) 251
Partons in quantum chromodynamics, G. Altarelli 81 (1982) 1
Upsilon physics at CESR, P. Franzini and J. Lee-Franzini 81 (1982) 239
Resonances in coupled channels in nuclear and particle physics, A.M. Badalyan, L.P. Kok, M.I. Polikarpov and Yu.A. Simonov 82 (1982) 31
Massive neutrinos, P.H. Frampton and P. Vogel 82 (1982) 339
Lifetime measurements in the 10^{-13}s range, G. Bellini, L. Foà, M.A. Giorgi, J. Sandweiss, L. Montanet, S. Reucroft and J.D. Prentice 83 (1982) 1
e^+e^- physics with the PLUTO detector, L. Criegee and G. Knies 83 (1982) 151
Particle detectors, K. Kleinknecht 84 (1982) 85
Techniques of dimensional regularization and the two-point functions of QCD and QED, S. Narison 84 (1982) 263
Stability and decay of the Dirac vacuum in external gauge fields, M. Soffel, B. Müller and W. Greiner 85 (1982) 51
Searches of fractionally charged particles in matter with the magnetic levitation technique, M. Marinelli and G. Morpurgo 85 (1982) 161
Mesic molecules and muon catalysed fusion, L. Bracci and G. Fiorentini 86 (1982) 169
Exact results in the theory of non-Abelian magnetic monopoles, P. Rossi 86 (1982) 317
Quark masses, J. Gasser and H. Leutwyler 87 (1982) 77
Gauge theories of weak interactions II, M.A.B. Bég and A. Sirlin 88 (1982) 1

$\pi \to e\nu$, $\pi \to e\nu\gamma$ decays and related processes, D.A. Bryman, P. Depommier and C. Leroy 88 (1982) 151
Quark matter formation and heavy ion collisions. A general review and status report, M. Jacob and J. Tran Thanh Van (editors) 88 (1982) 321
Introduction, M. Jacob 88 (1982) 325
Formation and observation of the quark–gluon plasma, J. Rafelski 88 (1982) 331
Critical behaviour in finite temperature QCD, H. Satz 88 (1982) 349
Heavy ion collisions in the hydrodynamical model, J. Kapusta 88 (1982) 365
Physical conditions that might be achieved in ultra-relativistic heavy ion collisions, L. McLerran 88 (1982) 379
Experiments on high energy density states, W. Willis 88 (1982) 393
Review on $\alpha\alpha$ and αp interactions in the CERN-ISR, M.A. Faessler 88 (1982) 401
The interaction of kaons with nucleons and nuclei, C.B. Dover and G.E. Walker 89 (1982) 1
A slice theorem for the space of solutions of Einstein's equations, J. Isenberg and J.E. Marsden 89 (1982) 179
Superstring theory, J.H. Schwarz 89 (1982) 223
Glashow–Weinberg–Salam theory of electroweak interactions and the neutral currents, S.M. Bilenky and J. Hošek 90 (1982) 73
The gauge treatment of gravity, D. Ivanenko and G. Sardanashvily 94 (1983) 1
Quantum integrable systems related to Lie algebras, M.A. Olshanetsky and A.M. Perelomov 94 (1983) 313
Quark mixing in weak interactions, Ling-Lie Chau 95 (1983) 1
Monte Carlo computations in lattice gauge theories, M. Creutz, L. Jacobs and C. Rebbi 95 (1983) 201
Baryon spectroscopy, A.J.G. Hey and R.L. Kelly 96 (1983) 71
Parton fragmentation and string dynamics, B. Andersson, G. Gustafson, G. Ingelman and T. Sjöstrand 97 (1983) 31
Classical string phenomenology. How strings work, X. Artru 97 (1983) 147
Upsilon spectroscopy at CESR, K. Berkelman 98 (1983) 145
Spin physics at short distances, N.S. Craigie, K. Hidaka, M. Jacob and F.M. Renard 99 (1983) 69
Neutrino exploration of the Earth, A. De Rújula, S.L. Glashow, R.R. Wilson and G. Charpak 99 (1983) 341
Semihard processes in QCD, L.V. Gribov, E.M. Levin and M.G. Ryskin 100 (1983) 1
Quantum cosmology via path integrals, J.V. Narlikar and T. Padmanabhan 100 (1983) 151
Jet structure and infrared sensitive quantities in perturbative QCD, A. Bassetto, M. Ciafaloni and G. Marchesini 100 (1983) 201
Canonical theories of Lagrangian dynamical systems in physics, H.A. Kastrup 101 (1983) 1
Diffractive interactions of hadrons at high energies, K. Goulianos 101 (1983) 169
Strong coupling and mean field methods in lattice gauge theories, J.-M. Drouffe and J.-B. Zuber 102 (1983) 1
Loop equations and $1/N$ expansion, A.A. Migdal 102 (1983) 199
Common trends in particle and condensed matter physics. Proceedings of Les Houches Winter Advanced Study Institute, February 1983, C. Itzykson, Y. Pomeau and N. Sourlas (editors) 103 (1984) 1
A rigorous approach to Anderson localization, J. Fröhlich and Th. Spencer 103 (1984) 9
Anderson transition and nonlinear σ-models, F. Wegner 103 (1984) 27
Can disorder induce several phase transitions, B. Derrida 103 (1984) 29
Electrons in random and almost-periodic potentials, B. Souillard 103 (1984) 41
Strip-these for random systems, J. Vannimenus and J.P. Nadal 103 (1984) 47

Statistical mechanics of equilibrium crystal shapes: Interfacial phase diagrams and phase transitions, C. Rottman and M. Wortis 103 (1984) 59
Conceptual problems of weak and strong turbulence, D. Ruelle 103 (1984) 81
The strong coupling limit of K.A.M. theory and the onset of turbulence, E.D. Siggia 103 (1984) 87
Chaotic behaviours in the unfolding of singular vector fields, P.H. Coullet 103 (1984) 95
The transition to turbulence in "wide systems", P. Manneville 103 (1984) 107
Transition to turbulence in systems with few degrees of freedom, P. Collet 103 (1984) 121
Application of the concept of transition by breaking of analyticity to the Peierls chain, S. Aubry 103 (1984) 125
Trajectories of the twist map with minimal action and connection with incommensurate structures, S. Aubry 103 (1984) 127
Quantum noise and strange attractors, R. Graham 103 (1984) 143
Harmonic analysis in fractal spaces: Random walk statistics and spectrum of the Schrödinger equation, R. Rammal 103 (1984) 151
Folding paper and thermodynamics, M. Mendes France 103 (1984) 161
The formation of fractal objects, M. Nauenberg 103 (1984) 173
The integrability problem and the Hamilton–Jacobi equation: A review, G. Gallavotti 103 (1984) 177
First results from the Ising Monte Carlo processor, R. Pearson 103 (1984) 185
Numerical simulation on the ICL distributed array processor, D.J. Wallace 103 (1984) 191
The strategy for computing the hadronic mass spectrum, G. Parisi 103 (1984) 203
Hadron masses in lattice QCD: A progress report, R. Petronzio 103 (1984) 213
Finite fermion density on the lattice, P. Hasenfratz and F. Karsch 103 (1984) 219
Self-avoiding walks, L. Peliti 103 (1984) 225
Analytic calculation of the mass gap in O(n) non-linear σ-models, M. Lüscher 103 (1984) 233
Random surfaces and the quantum Liouville theory, A. Neveu 103 (1984) 235
The quantum inverse method and the non-local charges in sigma models, H.J. de Vega 103 (1984) 243
Baryon exchange processes, J.K. Storrow 103 (1984) 317
Higher Energy Physics. What are the possibilities for extending our understanding of elementary particles and their interactions to much greater energies? Proceedings of the XVIIIth Solvay Conference on Physics at the University of Texas, Austin, Texas, U.S.A., November 1982, L. Van Hove (editor) 104 (1984) 87
Foreword, L. Van Hove 104 (1984) 101
Opening remarks, J. Solvay 104 (1984) 103
Energy scales (summary), S. Weinberg 104 (1984) 107
Supersymmetry and supergravity, B. Zumino 104 (1984) 113
Quantum field theory for elementary particles, G. 't Hooft 104 (1984) 129
Foundations and working pictures in microphysical cosmology, F. Wilczek 104 (1984) 143
Composite models for quarks and leptons, H. Harari 104 (1984) 159
The gauge hierarchy problem, technicolor, supersymmetry, and all that, L. Susskind 104 (1984) 181
Concluding remarks, Y. Nambu 104 (1984) 237
Supersymmetry confronting experiment, D.V. Nanopoulos and A. Savoy-Navarro (editors) 105 (1984) 1
Supersymmetry and fundamental particle interactions, S. Ferrara 105 (1984) 5
Supersymmetric theories of particles and interactions, P. Fayet 105 (1984) 21
Supersymmetry and its experimental consequences, C.H. Llewellyn Smith 105 (1984) 53
Supersymmetric Grand Unified Theories, D.V. Nanopoulos 105 (1984) 71
Experimental tests of supersymmetry, A. Savoy-Navarro 105 (1984) 91
Concluding theoretical remarks, J. Ellis 105 (1984) 121

Effective field theory and weak non-leptonic interactions, R.D.C. Miller and B.H.J. McKellar 106 (1984) 169
Charm and beauty production in strong interactions, A. Kernan and G. VanDalen 106 (1984) 297
e^+e^- physics at PETRA – The first five years, Sau Lan Wu 107 (1984) 59
Superfluidity and superconductivity in relativistic fermion systems, D. Bailin and A. Love 107 (1984) 325
A review of elastic hadronic scattering at high energies and small momentum transfers, M. Kamran 108 (1984) 275
Kac–Moody algebras and exact solvability in hadronic physics, L. Dolan 109 (1984) 1
SL(2, C) gauge theory of gravitation: conservation laws, N. Nissani 109 (1984) 95
A summary of experimental results from MARK J: high energy e^+e^- collisions at PETRA, MARK J Collaboration: B. Adeva, D.P. Barber, U. Becker, J. Berdugo, A. Böhm, J.G. Branson, J.D. Burger, M. Capell, M. Cerrada, H.S. Chen, M. Chen, M.L. Chen, M.Y. Chen, Y.S. Chu, R. Clare, E. Deffur, M. Demarteau, P. Duinker, H.S. Fesefeldt, D. Fong, M. Fukushima, R.D. Han, D. Harting, T. Hebbeker, G. Herten, M.C. Ho, M. Hussain, M.M. Ilyas, D.Z. Jiang, W. Krenz, P. Kuijer, Q.Z. Li, D. Luckey, E.J. Luit, C. Mana, M.A. Marquina, G.G.G. Massaro, R. Mount, K. Nadeem, H. Newman, M. Pohl, F.P. Poschmann, R.R. Rau, S. Rodriguez, M. Rohde, J.A. Rubio, H. Rykaczewski, J. Salicio, I. Schulz, H. Stone, G.M. Swider, H.W. Tang, D. Teuchert, S.C.C. Ting, K.L. Tung, M.Q. Wang, M. White, H.G. Wu, S.X. Wu, B. Wyslouch, B.X. Yang, C.C. Chang, B. Zhou, R.Y. Zhu and Y.C. Zhu 109 (1984) 131
Supersymmetry, supergravity and particle physics, H.P. Nilles 110 (1984) 1
On the determination of neutrino mass – A critical status report, Ching Cheng-rui and Ho Tso-hsiu 112 (1984) 1
Asymptotic behaviour of exclusive processes in QCD, V.L. Chernyak and A.R. Zhitnitsky 112 (1984) 173
Polarized beams in high energy storage rings, B.W. Montague 113 (1984) 1
Experiments with the CERN SPS hyperon beam, M. Bourquin and J.-P. Repellin 114 (1984) 99
Experiments with alpha particles at the CERN intersecting storage rings, M.A. Faessler 115 (1984) 1
Theory and phenomenology of the QCD vacuum, E.V. Shuryak 115 (1984) 151
Two-dimensional sigma models: modelling non-perturbative effects in quantum chromodynamics, V.A. Novikov, M.A. Shifman, A.I. Vainshtein and V.I. Zakharov 116 (1984) 103
Chiral symmetry and the U(1) problem, G.A. Christos 116 (1984) 251
The search for supersymmetry: Probing physics beyond the standard model, H.E. Haber and G.L. Kane 117 (1985) 75
The neutral weak current in muonic atoms, J. Missimer and L.M. Simons 118 (1985) 179
The generalized Schwinger–DeWitt technique in gauge theories and quantum gravity, A.O. Barvinsky and G.A. Vilkovisky 119 (1985) 1
Conformal supergravity, E.S. Fradkin and A.A. Tseytlin 119 (1985) 233
Determinations of the QCD strong coupling α_s and the scale $\Lambda_{\overline{MS}}$, D.W. Duke and R.G. Roberts 120 (1985) 275
Hyperon experiments at Fermilab, L.G. Pondrom 122 (1985) 57
Exotic phenomena in high energy ep collisions, R.J. Cashmore, S. Chadha, M. Cribier, D. Cords, R. Devenish, B. Lohr, P. Mattig, J. Proudfoot, R. Ruckl, H. Rykaczewski, D.H. Saxon, D. Schiller, J. Wheater and C. Youngman 122 (1985) 275
Interpretation of unusual events from CERN and DESY, L.J. Hall, R.L. Jaffe and J.L. Rosner 125 (1985) 103
Hamiltonian form of the path integral for theories with a gauge freedom, M. Henneaux 126 (1985) 1

Hadron properties from QCD sum rules, L.J. Reinders, H. Rubinstein and S. Yazaki 127 (1985) 1
Introducing supersymmetry, M.F. Sohnius 128 (1985) 39
Electromagnetic decays of light mesons, L.G. Landsberg 128 (1985) 301
Perturbative gauge theories, L. Beaulieu 129 (1985) 1
Quark search experiments at accelerators and in cosmic rays, L. Lyons 129 (1985) 225
Kaluza–Klein supergravity, M.J. Duff, B.E.W. Nilsson and C.N. Pope 130 (1986) 1
Nucleon structure functions from neutrino scattering, M. Diemoz, F. Ferroni and E. Longo 130 (1986) 293
Low-energy weak interactions of quarks, J.F. Donoghue, E. Golowich and B. Holstein 131 (1986) 319
Symmetry aspects of finite-temperature confinement transitions, B. Svetitsky 132 (1986) 1
The neutrino mass and family, lepton and baryon number non-conservation in gauge theories, J.D. Vergados 133 (1986) 1
The Casimir effect, G. Plunien, B. Müller and W. Greiner 134 (1986) 87
Fermion number fractionization in quantum field theory, A.J. Niemi and G.W. Semenoff 135 (1986) 99
An overview of quarks in nuclei, C.W. Wong 136 (1986) 1
Radiative decays in the ψ family, K. Königsmann 139 (1986) 243
The Skyrme model, I. Zahed and G.E. Brown 142 (1986) 1
Strangeness in relativistic heavy ion collisions, P. Koch, B. Müller and J. Rafelski 142 (1986) 167
How instantons solve the U(1) problem, G. 't Hooft 142 (1986) 357
Physics in multidimensional spaces and the beginning of Metagalaxy, V.M. Emel'yanov, Yu.P. Nikitin, I.L. Rozental and A.V. Berkov 143 (1986) 1
Proton–antiproton physics at the CERN intersecting storage rings, L. Camilleri 144 (1987) 51
The road to no-scale supergravity, A.B. Lahanas and D.V. Nanopoulos 145 (1987) 1
Photon photon reactions, Ch. Berger and W. Wagner 146 (1987) 1
Chiral models: Geometrical aspects, A.M. Perelomov 146 (1987) 135
Quantum electrodynamic processes in electrical engineering circuits, Y. Srivastava and A. Widom 148 (1987) 1
e^+e^- physics with the JADE detector at PETRA, B. Naroska 148 (1987) 67
Lectures on strings and moduli space, P. Nelson 149 (1987) 337
Light pseudoscalars, particle physics and cosmology, J.E. Kim 150 (1987) 1
Experimental particle physics without accelerators, J. Rich, D. Lloyd Owen and M. Spiro 151 (1987) 239
Stochastic quantization, P.H. Damgaard and H. Hüffel 152 (1987) 227
UA5: A general study of proton–antiproton physics at $\sqrt{s} = 546$ GeV, UA5 Collaboration; G.J. Alner, K. Alpgård, P. Anderer, R.E. Ansorge, B. Åsman, S. Berglund, K. Berkelman, D. Bertrand, C.N. Booth, C. Buffam, L. Burow, P. Carlson, J.-L. Chevalley, C. Declercq, R.S. DeWolf, B. Eckart, G. Ekspong, I. Evangelou, A. Eyring, J.-P. Fabre, M. Fischer, K.A. French, C. Fuglesang, J. Gaudaen, C. Geich-Gimbel, M. Gijsen, K. von Holt, R. Hospes, D. Johnson, K. Jon-And, Th. Kokott, M. Langer, F. Lotse, R. Mackenzie, M.N. Maggs, R. Meinke, Th. Müller, H. Mulkens, D.J. Munday, A. Odian, J.E.V. Ovens, M. Rosenberg, J.G. Rushbrooke, H. Saarikko, T. Saarikko, H. Schmickler, F. Triantis, L. Van Hamme, Ch. Walck, C.P. Ward, D.R. Ward, G. Weber, T.O. White, G. Wilquet and N. Yamdagni 154 (1987) 247
The physics of the τ lepton, B.C. Barish and R. Stroynowski 157 (1988) 1
Decays of the b quark, E.H. Thorndike and R.A. Poling 157 (1988) 183
The quantum field theory of electric and magnetic charge, M. Blagojević and P. Senjanović 157 (1988) 233

The strong *CP* problem revisited, Hai-Yang Cheng	158 (1988)	1
Spectroscopy of mesons containing light quarks (u, d, s) or gluons, B. Diekmann	159 (1988)	99
Signals from non-strongly interacting supersymmetric particles at LEP energies, M. Chen, C. Dionisi, M. Martinez and X. Tata	159 (1988)	201
Supersymmetric composite models, R.R. Volkas and G.C. Joshi	159 (1988)	303
Hard nuclear processes and microscopic nuclear structure, L. Frankfurt and M. Strikman	160 (1988)	235
Low-energy hadron physics from effective chiral Lagrangians with vector mesons, U.-G. Meissner	161 (1988)	213
The quark structure of the nucleon from the CERN muon experiments, T. Sloan, G. Smadja and R. Voss	162 (1988)	45
Non-perturbative aspects in supersymmetric gauge theories, D. Amati, K. Konishi, Y. Meurice, G.C. Rossi and G. Veneziano	162 (1988)	169
Nonlinear realization and hidden local symmetries, M: Bando, T. Kugo and K. Yamawaki	164 (1988)	217
Triviality pursuit: can elementary scalar particles exist?, D.J.E. Callaway	167 (1988)	241
The toponium scenario, J.H. Kühn and P.M. Zerwas	167 (1988)	321
Conformal techniques in string theory and string field theory, S.B. Giddings	170 (1988)	167
Physics with matter–antimatter colliders, G. Salvini and A. Silverman	171 (1988)	231
$B\bar{B}$ mixing: a review of recent progress, P.J. Franzini	173 (1989)	1
Electromagnetic meson-exchange currents at the nucleon mass scale, J.-F. Mathiot	173 (1989)	63
The Skyrme soliton in pion, vector- and scalar-meson fields: πN-scattering and photoproduction, B. Schwesinger, H. Weigel, G. Holzwarth and A. Hayashi	173 (1989)	173
J/ψ decays, L. Köpke and N. Wermes	174 (1989)	67
Supersymmetric chiral models: geometrical aspects, A.M. Perelomov	174 (1989)	229
Light-cone gauge analysis of superstrings, A. Restuccia and J.G. Taylor	174 (1989)	283
String field theory, C.B. Thorn	175 (1989)	1
Lattices and strings, W. Lerche, A.N. Schellekens and N.P. Warner	177 (1989)	1
The structure of jets in e^+e^- collisions, P. Mättig	177 (1989)	141
Spin effects at supercollider energies, C. Bourrely, J. Soffer, F.M. Renard and P. Taxil	177 (1989)	319
Quark mixing and *CP* violation, E.A. Paschos and U. Türke	178 (1989)	145
Electroweak Higgs potentials and vacuum stability, M. Sher	179 (1989)	273
Exchange currents, D.O. Riska	181 (1989)	207
Chiral gauge theory, R.D. Ball	182 (1989)	1
Quark–gluon transport theory, H.-T. Elze and U. Heinz	183 (1989)	81
Low-energy phenomenology of superstring-inspired E_6 models, J.L. Hewett and T.G. Rizzo	183 (1989)	193
On the production and spectroscopy of Σ hypernuclei, C.B. Dover, D.J. Millener and A. Gal	184 (1989)	1
Common trends in statistical physics and field theory, Proc. Cargèse Advanced Research Workshop, C. Itzykson, S. Kirkpatrick, G. Parisi, N. Sourlas and M.A. Virasoro (editors)	184 (1989)	99
Gravity from strings, D. Amati	184 (1989)	105
The three-dimensional Ising model and superstring theory, A. Bilal	184 (1989)	113
General approach to two-dimensional critical systems, J.L. Gervais	184 (1989)	121
Deconfinement in QCD: an analysis of the phase transition, E. Marinari	184 (1989)	131
Pedagogical introduction to BRST, A.J. Niemi	184 (1989)	147
Closed strings and their open-string descendants, A. Sagnotti	184 (1989)	167
Lattice models and conformal field theories, H. Saleur	184 (1989)	177

An enlarged phase space for finite-dimensional constrained systems, unifying their Lagrangian phase- and velocity-space descriptions, L. Lusanna 185 (1990) 1
Modifications of nucleons in nuclei and other consequences of the quark substructure, P.J. Mulders 185 (1990) 83
Physics of mirror fermions, J. Maalampi and M. Roos 186 (1990) 53
Decay modes of sigma and lambda hypernuclei, E. Oset, P. Fernández de Córdoba, L.L. Salcedo and R. Brockmann 188 (1990) 79
The inverse problem in the calculus of variations and the geometry of the tangent bundle, G. Morandi, C. Ferrario, G. Lo Vecchio, G. Marmo and C. Rubano 188 (1990) 147
Bifurcation and symmetry breaking, G. Gaeta 189 (1990) 1
New physics from Supernova 1987A, D.N. Schramm and J. W. Truran 189 (1990) 89
High energy hadron collisions in QCD, E.M. Levin and M.G. Ryskin 189 (1990) 267
Inflation, K.A. Olive 190 (1990) 307
The spacetime supersymmetric formulation of the string, J.A. Shapiro and C.C. Taylor 191 (1990) 221
Charge symmetry, quarks and mesons, G.A. Miller, B.M.K. Nefkens and I. Šlaus 194 (1990) 1
Heavy quark production at the CERN $p\bar{p}$ collider, N. Ellis and A. Kernan 195 (1990) 23
Windows on the axion, M.S. Turner 197 (1990) 67
Hadronic production of particles at large transverse momentum: its relevance to hadron structure, parton fragmentation and scattering, W.M. Geist, D. Drijard, A. Putzer, R. Sosnowski and D. Wegener 197 (1990) 263
Astrophysical methods to constrain axions and other novel particle phenomena, G.G. Raffelt 198 (1990) 1
Bound states of quarks, W. Lucha, F.F. Schöberl and D. Gromes 200 (1991) 127

Nuclear physics

Semiclassical theory of heavy ion reactions, R.A. Broglia and A. Winther 4 (1972) 153
Fission and fusion dynamics, W.J. Swiatecki and S. Bjørnholm 4 (1972) 325
From soft to real pions in nuclear physics, M. Ericson and M. Rho 5 (1972) 57
Parity-violating nuclear interactions and models of the weak Hamiltonian, E. Fischbach and D. Tadić 6 (1973) 123
Parity nonconservation in nuclei, M. Gari 6 (1973) 317
On the shell model and its application to the deformation energy of heavy nuclei, H.C. Pauli 7 (1973) 35
Nuclear rotation at high angular velocities, A. Johnson and Z. Szymański 7 (1973) 181
Spectroscopic study of multinucleon transfer reactions induced by heavy ions, M.-C. Lemaire 7 (1973) 279
Bremsstrahlung in nucleon–nucleon collisions, E.M. Nyman 9 (1974) 179
Particle spectra and particle-vibration coupling in the Pb region, I. Hamamoto 10 (1974) 63
Semiquantal approximations to heavy ion reaction, R.A. Broglia, S. Landowne, R.A. Malfliet, V. Rostokin and Aa. Winther 11 (1974) 1
Nuclear structure of light nuclei using the selectivity of high energy transfer reactions with heavy ions, N. Anyas-Weiss, J.C. Cornell, P.S. Fisher, P.N. Hudson, A. Menchaca-Rocha, D.J. Millener, A.D. Panagiotou, D.K. Scott, D. Strottman, D.M. Brink, B. Buck, P.J. Ellis and T. Engeland 12 (1974) 201
Hadronic aspects of photon–nucleus interactions, W. Weise 13 (1974) 53
Current status of the relativistic two-nucleon one boson exchange potential, K. Erkelenz 13 (1974) 191

Compact reformulation of distorted-wave and coupled-channel Born approximations for transfer reactions between nuclei, T. Tamura 14 (1974) 59
New giant resonances in nuclei. An interim review, G.R. Satchler 14 (1974) 97
Classical dynamical theory of heavy ion fusion and scattering, J.P. Bondorf, M.I. Sobel and D. Sperber 15 (1974) 83
Generator-coordinate methods in nuclear physics, C.W. Wong 15 (1975) 283
Microscopic description of isoscalar and isovector giant quadrupole resonances, D.R. Bes, R.A. Broglia and B.S. Nilsson 16 (1975) 1
Reaction mechanism of two-nucleon transfer between heavy ions, U. Götz, M. Ichimura, R.A. Broglia and A. Winther 16 (1975) 115
A study of the nuclear response function, G.F. Bertsch and S.F. Tsai 18 (1975) 125
Brueckner theory of nuclei, H.S. Köhler 18 (1975) 217
Electron scattering from atoms, nuclei and nucleons, G.B. West 18 (1975) 263
The self-consistent single-particle model in nuclear physics, H.J. Mang 18 (1975) 325
Elastic transfer processes in heavy ion scattering, W. von Oertzen and H.G. Bohlen 19 (1975) 1
Analyticity in hadron–nuclei binary reactions, S. Dubnička and O. Dumbrajs 19 (1975) 141
The optical potential and nuclear structure, B. Sinha 20 (1975) 1
Pions interact with nuclei, J. Hüfner 21 (1975) 1
The statistical theory of nuclear reactions for strongly overlapping resonances as a theory of transport phenomena, D. Agassi, H.A. Weidenmüller and G. Mantzouranis 22 (1975) 145
Semi-classical approximations to heavy ion scattering based on the Feynman path-integral method, T. Koeling and R.A. Malfliet 22 (1975) 181
Pion scattering and isobars in nuclei, G.E. Brown and W. Weise 22 (1975) 279
Many-body theory of nuclear matter, J.P. Jeukenne, A. Lejeune and C. Mahaux 25 (1976) 83
The break-up of the deuteron and stripping to unbound states, G. Baur and D. Trautmann 25 (1976) 293
The effective neutron–proton interaction in rare-earth nuclei, J.P. Boisson, R. Piepenbring and W. Ogle 26 (1976) 99
Microscopic structure of nuclei from scattering through isobaric analogue resonances, K. Heyde, M. Waroquier and H. Vincx 26 (1976) 227
Fine structure of analogue states, E.G. Bilpuch, A.M. Lane, G.E. Mitchell and J.D. Moses 28 (1976) 145
Formfactors for one- and two-nucleon transfer reactions induced by light and heavy ions, R.A. Broglia, R. Liotta, B.S. Nilsson and A. Winther 29 (1977) 291
Nuclear muon capture, N.C. Mukhopadhyay 30 (1977) 1
Nuclear field theory, P.F. Bortignon, R.A. Broglia, D.R. Bes and R. Liotta 30 (1977) 305
Complex paths and uniform approximations in a semi-classical description of direct reactions, J. Knoll and R. Schaeffer 31 (1977) 159
Theory of finite Fermi systems and applications to the lead region, J. Speth, E. Werner and W. Wild 33 (1977) 127
Isovector pairing vibrations, D.R. Bes, R.A. Broglia, O. Hansen and O. Nathan 34 (1977) 1
What can low-energy nuclear physics tell us about elementary particles and quarks?, L.H. Ryder 34 (1977) 55
Many-fermion theory in exp S- (or coupled cluster) form, H. Kümmel, K.H. Lührmann and J.G. Zabolitzky 36 (1978) 1
Isobar configurations in nuclei, H.J. Weber and H. Arenhövel 36 (1978) 277
Elastic and inelastic heavy ion scattering, W.E. Frahn and K.E. Rehm 37 (1978) 1
Effective coupling constants for beta and gamma transitions in medium and heavy nuclei, H. Ejiri and J.I. Fujita 38 (1978) 85

Applications of progenitor sum rules in nuclear theory, J.V. Noble 40 (1978) 241
DWIA analysis of quasifree proton–proton scattering in nuclei at intermediate energies, R. Bengtsson, T. Berggren and Ch. Gustafsson 41 (1978) 191
Scattering of 1 GeV protons on nuclei, G.D. Alkhazov, S.L. Belostotsky and A.A. Vorobyov 42 (1978) 89
Energy dependence of peripheral reactions induced by heavy ions, C.K. Gelbke, C. Olmer, M. Buenerd, D.L. Hendrie, J. Mahoney, M.C. Mermaz and D.K. Scott 42 (1978) 311
Deep inelastic transfer reactions – The new type of reactions between complex nuclei, V.V. Volkov 44 (1978) 93
Shell structure in nuclei, I. Ragnarsson, S.G. Nilsson and R.K. Sheline 45 (1978) 1
Friction model of heavy-ion collisions, D.H.E. Gross and H. Kalinowski 45 (1978) 175
Mechanisms of very heavy-ion collisions: the $^{209}Bi + ^{136}Xe$ reaction at $E_{Lab} = 1130$ MeV, W.U. Schröder, J.R. Birkelund, J.R. Huizenga, K.L. Wolf and V.E. Viola Jr. 45 (1978) 301
The use of analyticity in nuclear physics, M.P. Locher and T. Mizutani 46 (1978) 43
Bounds on the mass and moment of inertia of non-rotating neutron stars, J.B. Hartle 46 (1978) 201
Resonating-group method for nuclear many-body problems, Y.C. Tang, M. LeMere and D.R. Thompson 47 (1978) 167
Formfactors for inelastic scattering between heavy ions, R.A. Broglia, C.H. Dasso, G. Pollarolo and A. Winther 48 (1978) 351
Neutral current effects in nuclei, T.W. Donnelly and R.D. Peccei 50 (1979) 1
The pion–nucleus many-body problem, G.E. Brown, B.K. Jennings and V.I. Rostokin 50 (1979) 227
Sum rules for nuclear collective excitations, O. Bohigas, A.M. Lane and J. Martorell 51 (1979) 267
Pion–nucleus charge exchange reactions, J. Alster and J. Warszawski 52 (1979) 87
Nuclear reactor safety, J.L. Head, A.J.H. Goddard and P.J. Grant 53 (1979) 249
Isospin effect in photoproton reaction on heavy nuclei, K. Shoda 53 (1979) 341
Folding model potentials from realistic interactions for heavy-ion scattering, G.R. Satchler and W.G. Love 55 (1979) 183
Heavy-ion fusion: Comparison of experimental data with classical trajectory models, J.R. Birkelund, L.E. Tubbs, J.R. Huizenga, J.N. De and D. Sperber 56 (1979) 107
Electron capture in high-energy ion–atom collisions, Dž. Belkić, R. Gayet and A. Salin 56 (1979) 279
A semiclassical theory of elastic scattering and direct-reactions: Time-independent formulation in three spatial dimensions with complex trajectories, B.J.B. Crowley 57 (1980) 47
Pion–deuteron and pion–nucleus scattering – a review, A.W. Thomas and R.H. Landau 58 (1980) 121
Perturbed stationary state approach to nuclear heavy ion collision, O. Tanimura and T. Tazawa 61 (1980) 253
Nuclear compressibilities, J.P. Blaizot 64 (1980) 171
Nuclear physics with synchrotron radiation, R. Chrien, A. Hofmann and A. Molinari 64 (1980) 249
Spectroscopic properties of fission isomers, V. Metag, D. Habs and H.J. Specht 65 (1980) 1
Direct reaction analyses of heavy-ion induced reactions leading to discrete states, T. Tamura, T. Udagawa and M.C. Mermaz 65 (1980) 345
Collective states in nuclei. A tale of two sounds, B.K. Jennings and A.D. Jackson 66 (1980) 141
Two-nucleon forces and nuclear matter, K. Holinde 68 (1981) 121
Pion photoproduction on few body systems, J.M. Laget 69 (1981) 1
Fusion barriers, empirical and theoretical: Evidence for dynamic deformation in subbarrier fusion, L.C. Vaz, J.M. Alexander and G.R. Satchler 69 (1981) 373
Theoretical spectroscopy and the fp shell, A. Poves and A. Zuker 70 (1981) 235
Quasiconfigurations and the theory of effective interactions, A. Poves and A. Zuker 71 (1981) 141
Photonuclear reactions at intermediate energies ($40 \text{ MeV} \leq E_\gamma \leq 400 \text{ MeV}$), M. Gari and H. Hebach 72 (1981) 1

The thermodynamic model for relativistic heavy ion collisions, S. Das Gupta and A.Z. Mekjian 72 (1981) 131
State quadrupole moments of first 2^+ states in the 2s–1d shell: A review of experiment and theory, R.H. Spear 73 (1981) 369
Microscopic nucleus–nucleus potentials, H. Friedrich 74 (1981) 209
Unnatural parity states in nuclei and pion condensation, J. Meyer-ter-Vehn 74 (1981) 323
Pair creation by internal conversion, P. Schlüter, G. Soff and W. Greiner 75 (1981) 327
High-energy phenomena, short-range nuclear structure and QCD, L.L. Frankfurt and M.I. Strikman 76 (1981) 215
Preequilibrium reactions: Statistical fluctuations and doorways, W.A. Friedman, M.S. Hussein, K.W. McVoy and P.A. Mello 77 (1981) 47
Quantum mechanical description of the intrinsic excitation of fissioning nuclei, G. Schütte 80 (1981) 113
Fundamental aspects of neutron optics, V.F. Sears 82 (1982) 1
Resonances in coupled channels in nuclear and particle physics, A.M. Badalyan, L.P. Kok, M.I. Polikarpov and Yu.A. Simonov 82 (1982) 31
The use of positive muons in metal physics, E. Karlsson 82 (1982) 271
Pionic modes of excitation in nuclei, E. Oset, H. Toki and W. Weise 83 (1982) 281
Variational and perturbation theories made planar, A.D. Jackson, A. Lande and R.A. Smith 86 (1982) 55
Mesic molecules and muon catalysed fusion, L. Bracci and G. Fiorentini 86 (1982) 169
Gamma-ray lasers?, G.C. Baldwin 87 (1982) 1
An optical model analysis of neutron scattering, J. Rapaport 87 (1982) 25
Dynamical aspects of large angle heavy-ion scattering, P. Braun-Munzinger and J. Barrette 87 (1982) 209
$\pi \to e\nu$, $\pi \to e\nu\gamma$ decays and related processes, D.A. Bryman, P. Depommier and C. Leroy 88 (1982) 151
Quark matter formation and heavy ion collisions. A general review and status report, M. Jacob and J. Tran Thanh Van (editors) 88 (1982) 321
Introduction, M. Jacob 88 (1982) 325
Formation and observation of the quark–gluon plasma, J. Rafelski 88 (1982) 331
Critical behaviour in finite temperature QCD, H. Satz 88 (1982) 349
Heavy ion collisions in the hydrodynamical model, J. Kapusta 88 (1982) 365
Physical conditions that might be achieved in ultra-relativistic heavy ion collisions, L. McLerran 88 (1982) 379
Experiments on high energy density states, W. Willis 88 (1982) 393
Review on $\alpha\alpha$ and αp interactions in the CERN-ISR, M.A. Faessler 88 (1982) 401
The interaction of kaons with nucleons and nuclei, C.B. Dover and G.E. Walker 89 (1982) 1
Finite Fermi systems theory and self-consistency relations, V.A. Khodel and E.E. Saperstein 92 (1982) 183
Charged particle reaction cross sections and nucleosynthesis, D.G. Sargood 93 (1982) 61
Pre-equilibrium nuclear reactions: The overlapping-doorway model for multi-step compound processes, K.W. McVoy and X.T. Tang 94 (1983) 139
Short range and long range schematic interactions, their implications for giant resonances, polarization charges and other properties of nuclei, A. Mekjian and L. Zamick 95 (1983) 321
The residual interaction of bound nucleons – two-nucleon matrix elements deduced from transfer experiments, W.W. Daehnick 96 (1983) 317

Reassessment of fission fragment angular distributions from continuum states in the context of transition-state theory, L.C. Vaz and J.M. Alexander 97 (1983) 1
Coulomb effects in nuclear structure, N. Auerbach 98 (1983) 273
Relativistic nuclear structure physics, M.R. Anastasio, L.S. Celenza, W.S. Pong and C.M. Shakin 100 (1983) 327
Electric quadrupole and hexadecupole nuclear excitations from the perspectives of electron scattering and modern shell-model theory, B.A. Brown, R. Radhi and B.H. Wildenthal 101 (1983) 313
Coexistence in odd-mass nuclei, K. Heyde, P. Van Isacker, M. Waroquier, J.L. Wood and R.A. Meyer 102 (1983) 291
Wigner's function and other distribution functions in mock phase spaces, N.L. Balazs and B.K. Jennings 104 (1984) 347
N/Z-equilibration and nucleon exchange in dissipative heavy-ion collisions, H. Freiesleben and J.V. Kratz 106 (1984) 1
From the discovery of the neutron to the discovery of nuclear fission, E. Amaldi 111 (1984) 1
Fragmentation processes in nuclear reactions, G. Baur, F. Rösel, D. Trautmann and R. Shyam 111 (1984) 333
Polarization potentials in heavy-ion scattering, M.S. Hussein, A.J. Baltz and B.V. Carlson 113 (1984) 133
Fusion and capture of heavy ions above the barrier: Analysis of experimental data with the surface friction model, P. Fröbrich 116 (1984) 337
Amplitude correlations in nuclear resonance spectroscopy, G.E. Mitchell, E.G. Bilpuch, J.F. Shriner Jr. and A.M. Lane 117 (1985) 1
The neutral weak current in muonic atoms, J. Missimer and L.M. Simons 118 (1985) 179
Dynamics of the shell model, C. Mahaux, P.F. Bortignon, R.A. Broglia and C.H. Dasso 120 (1985) 1
Selfconsistent semiclassical description of average nuclear properties – A link between microscopic and macroscopic models, M. Brack, C. Guet and H.-B. Håkansson 123 (1985) 275
The nucleon–nucleon interaction and the nuclear many-body problem, S.-O. Bäckman, G.E. Brown and J.A. Niskanen 124 (1985) 1
Heavy fragments produced in proton–nucleus and nucleus–nucleus collisions at relativistic energies, J. Hüfner 125 (1985) 129
One- and two-nucleon overlap functions in nuclear physics, J.M. Bang, F.G. Gareev, W.T. Pinkston and J.S. Vaagen 125 (1985) 253
Photonuclear reaction cross sections for ^{12}C, ^{14}N and ^{16}O, E.G. Fuller 127 (1985) 185
Fast particle emission from nuclear reactions, H. Machner 127 (1985) 309
Subbarrier fusion of atomic nuclei, M. Beckerman 129 (1985) 145
Grassmann integration in stochastic quantum physics: The case of compound–nucleus scattering, J.J.M. Verbaarschot, H.A. Weidenmüller and M.R. Zirnbauer 129 (1985) 367
Quarks and gluons at high temperatures and densities, J. Cleymans, R.V. Gavai and E. Suhonen 130 (1986) 217
Entropy and cluster production in nuclear collisions, L.P. Csernai and J.I. Kapusta 131 (1986) 223
Interplay between theory and experiment for fission-fragment angular distributions from nuclei near the limits of stability, R. Freifelder, M. Prakash and J.M. Alexander 133 (1986) 315
Particle production in high energy nucleus–nucleus collisions, R. Stock 135 (1986) 259
An overview of quarks in nuclei, C.W. Wong 136 (1986) 1
The giant dipole resonance in light nuclei and related phenomena, R.A. Eramzhyan, B.S. Ishkanov, I.M. Kapitonov and V.G. Neudatchin 136 (1986) 229
High energy heavy ion collisions – Probing the equation of state of highly excited hadronic matter, H. Stöcker and W. Greiner 137 (1986) 277

Rotational nuclear models and electron scattering, E. Moya de Guerra 138 (1986) 293
Long and intermediate range phenomena; selected topics in high energy nuclear physics, V.B. Kopeliovich 139 (1986) 51
Relativistic hydrodynamics and heavy ion reactions, R.B.Clare and D. Strottman 141 (1986) 177
The Skyrme model, I. Zahed and G.E. Brown 142 (1986) 1
Strangeness in relativistic heavy ion collisions, P. Koch, B. Müller and J. Rafelski 142 (1986) 167
High-energy collisions with atomic nuclei: The experimental results, S. Fredriksson, G. Eilam, G. Berlad and L. Bergström 144 (1987) 187
Analytical treatment of high-energy nucleus–nucleus collisions, B. Schürmann, W. Zwermann and R. Malfliet 147 (1987) 1
Anomalons in relativistic heavy-ion collisions, B.F. Bayman and Y.C. Tang 147 (1987) 155
Tagged photons. An analysis of the Bremsstrahlung cross section, L.C. Maximon, A. de Miniac, T. Aniel and E. Ganz 147 (1987) 189
New spin excitation modes in nuclei, B. Castel and L. Zamick 148 (1987) 217
Rearrangement effects in shell-model calculations using density-dependent interactions, M. Waroquier, J. Ryckebusch, J. Moreau, K. Heyde, N. Blasi, S.Y. van der Werf and G. Wenes 148 (1987) 249
The Bonn meson-exchange model for the nucleon–nucleon interaction, R. Machleidt, K. Holinde and Ch. Elster 149 (1987) 1
Nucleons, mesons and deltas in nuclear matter. A relativistic Dirac–Brueckner approach, B. ter Haar and R. Malfliet 149 (1987) 207
Continuum-discretized coupled-channels calculations for three-body models of deuteron–nucleus reactions, N. Austern, Y. Iseri, M. Kamimura, M. Kawai, G. Rawitscher and M. Yahiro 154 (1987) 125
Molecular orbitals of nucleons in nucleus–nucleus collisions, B. Imanishi and W. von Oertzen 155 (1987) 29
Quenching of spin matrix elements in nuclei, I.S. Towner 155 (1987) 263
Coherent rotational states, their formation and detection, L. Fonda, N. Mankoč-Borštnik and M. Rosina 158 (1988) 159
A guide to microscopic models for intermediate energy heavy ion collisions, G.F. Bertsch and S. Das Gupta 160 (1988) 189
Hard nuclear processes and microscopic nuclear structure, L. Frankfurt and M. Strikman 160 (1988) 235
Meson exchange models of the nuclear response function, S. Krewald, K. Nakayama and J. Speth 161 (1988) 103
Low-energy hadron physics from effective chiral Lagrangians with vector mesons, U.-G. Meissner 161 (1988) 213
The quark structure of the nucleon from the CERN muon experiments, T. Sloan, G. Smadja and R. Voss 162 (1988) 45
Electromagnetic processes in relativistic heavy ion collisions, C.A. Bertulani and G. Baur 163 (1988) 299
Damping of high-lying single-particle modes in heavy nuclei, S. Galès, Ch. Stoyanov and A.I. Vdovin 166 (1988) 125
The broken pair model for nuclei and its recent applications, K. Allaart, E. Boeker, G. Bonsignori, M. Savoia and Y.K. Gambhir 169 (1988) 209
Electromagnetic meson-exchange currents at the nucleon mass scale, J.-F. Mathiot 173 (1989) 63
The Skyrme soliton in pion, vector- and scalar-meson fields: πN-scattering and photoproduction, B. Schwesinger, H. Weigel, G. Holzwarth and A. Hayashi 173 (1989) 173
Neutron–neutron effective range parameters, I. Šlaus, Y. Akaishi and H. Tanaka 173 (1989) 257

Sum rules and giant resonances in nuclei, E. Lipparini and S. Stringari 175 (1989) 103
Exchange currents, D.O. Riska 181 (1989) 207
On the production and spectroscopy of Σ hypernuclei, C.B. Dover, D.J. Millener and A. Gal 184 (1989) 1
Modifications of nucleons in nuclei and other consequences of the quark substructure, P.J. Mulders 185 (1990) 83
Semiclassical approach to the description of nuclear reactions with fast particles, M.M. Nesterov and N.A. Tarasov 185 (1990) 171
Justifying the chiral bag, L. Vepstas and A.D. Jackson 187 (1990) 109
Decay modes of sigma and lambda hypernuclei, E. Oset, P. Fernández de Córdoba, L.L. Salcedo and R. Brockmann 188 (1990) 79
Production of energetic particles in heavy-ion collisions, W. Cassing, V. Metag, U. Mosel and K. Niita 188 (1990) 363
SAM revisited: absorptive uniform semiclassical approximation and application to heavy-ion elastic scattering, M.P. Pato and M.S. Hussein 189 (1990) 127
High energy hadron collisions in QCD, E.M. Levin and M.G. Ryskin 189 (1990) 267
Nuclear photoreactions at intermediate energies, P. Christillin 190 (1990) 63
Spallation processes and nuclear interaction products of cosmic rays, R. Silberberg and C.H. Tsao 191 (1990) 351
Pion degrees of freedom in nuclear matter, A.B. Migdal, E.E. Saperstein, M.A. Troitsky and D.N. Voskresensky 192 (1990) 177
Charge symmetry, quarks and mesons, G.A. Miller, B.M.K. Nefkens and I. Šlaus 194 (1990) 1
Pion absorption in light nuclei, H.J. Weyer 195 (1990) 295
Electron cooling: theory, experiment, application, H. Poth 196 (1990) 135
The nuclear response within extended RPA theories, S. Drożdż, S. Nishizaki, J. Speth and J. Wambach 197 (1990) 1
Nuclear scission, U. Brosa, S. Grossmann and A. Müller 197 (1990) 167
Quantum transport theory of nuclear matter, W. Botermans and R. Malfliet 198 (1990) 115
Two-nucleon transfer reaction mechanisms, M. Igarashi, K.-I. Kubo and K. Yagi 199 (1991) 1
Heavy-ion scattering and reactions near the Coulomb barrier and "threshold anomalies", G.R. Satchler 199 (1991) 147
Bound states of quarks, W. Lucha, F.F. Schöberl and D. Gromes 200 (1991) 127

Atomic and molecular physics

The interaction of atoms with polarised light, F.K. Lamb and D. ter Haar 2 (1971) 253
Quantum theory of electromagnetic fields interacting with atoms and molecules, S. Stenholm 6 (1973) 1
Frequency shifts in emission and absorption by resonant systems of two-level atoms, R. Friedberg, S.R. Hartmann and J.T. Manassah 7 (1973) 101
High resolution spectroscopy with lasers, W. Demtröder 7 (1973) 223
The use of positrons for the study of solids, I.Ya. Dekhtyar 9 (1974) 243
Perturbation of spectral lines by atomic interactions, F. Schuller and W. Behmenburg 12 (1974) 273
Atomic physics with ion accelerators – beam-foil spectroscopy, I. Martinson and A. Gaupp 15 (1974) 113
The radiation of atomic negative ions, H.-P. Popp 16 (1975) 169
Quantum kinetic theory of polyatomic gases, H. Moraal 17 (1975) 225
Electron scattering from atoms, nuclei and nucleons, G.B. West 18 (1975) 263

Delbrück scattering, P. Papatzacos and K. Mork	21 (1975) 81
Positronium: a review of the theory, M.A. Stroscio	22 (1975) 215
Semiclassical and quantum-electrodynamical approaches in nonrelativistic radiation theory, P.W. Milonni	25 (1976) 1
Correlation energies in atoms, C.S. Sharma	26 (1976) 1
(e, 2e) spectroscopy, I.E. McCarthy and E. Weigold	27 (1976) 275
Photoionization of atoms and molecules, J.A.R. Samson	28 (1976) 303
Electron scattering by atoms at intermediate energies I. Theoretical models, B.H. Bransden and M.R.C. McDowell	30 (1977) 207
AC Stark effect and multiphoton processes in atoms, J.S. Bakos	31 (1977) 209
Optical pumping of ions, E.W. Weber	32 (1977) 123
Eikonal theory of electron– and positron–atom collisions, F.W. Byron Jr. and C.J. Joachain	34 (1977) 233
Electron scattering by atoms and molecules, P.G. Burke and J.F. Williams	34 (1977) 325
Other men's flowers, D.R. Bates	35 (1978) 305
Atomic and molecular data for controlled thermonuclear fusion. Invited papers at IAEA advisory meeting, Vienna, November 1976, A. Lorenz (organizer)	37 (1978) 53
Address of welcome, R.S. Pease	37 (1978) 56
The role of atomic and molecular processes in fusion research, M.F.A. Harrison	37 (1978) 59
Atomic and molecular data needs, priorities, and accuracies for Tokamak beam injection, J.T. Hogan	37 (1978) 83
Data needs for plasma surface interaction, H. Vernickel	37 (1978) 93
Data needs, priorities and accuracies for plasma modelling, M.L. Watkins	37 (1978) 111
Plasma impurities and cooling, H.W. Drawin	37 (1978) 125
Data needs, priorities and accuracies for plasma spectroscopy, R.W.P. McWhirter	37 (1978) 165
Experimental aspects of the study of the interaction of low-energy positrons with gases, T.C. Griffith and G.R. Heyland	39 (1978) 169
Electron capture processes in ion–atom collisions, D. Basu, S.C. Mukherjee and D.P. Sural	42 (1978) 145
A semi-classical approach to radiation problems, G.W. Series	43 (1978) 1
Effects of collisions on linear and non-linear spectroscopic line shapes, P.R. Berman	43 (1978) 101
Theoretical foundations of laser spectroscopy, S. Stenholm	43 (1978) 151
Spectroscopic techniques based on Lamb's laser theory, M. Sargent III	43 (1978) 223
Hyperfine splitting in positronium and muonium, G.T. Bodwin and D.R. Yennie	43 (1978) 267
Quantum theory of anharmonic oscillators: energy levels of a single and a pair of coupled oscillators with quartic coupling, F.T. Hioe, D. MacMillen and E.W. Montroll	43 (1978) 305
Highlights of synchrotron radiation, K.R. Lea	43 (1978) 337
Generalized two photon theory, A. Schenzle and R.G. Brewer	43 (1978) 455
State reduction in quantum mechanics: a calculational example, M.O. Scully, R. Shea and J.D. McCullen	43 (1978) 485
The variational method in atomic scattering, J. Callaway	45 (1978) 89
Electron scattering by polar molecules, Y. Itikawa	46 (1978) 117
Electron scattering by atoms at intermediate energies II. Theoretical and experimental data for light atoms, B.H. Bransden and M.R.C. McDowell	46 (1978) 249
Several problems of the theory of transition radiation and transition scattering, V.L. Ginzburg and V.N. Tsytovich	49 (1979) 1
Excited atomic and molecular states in strong electromagnetic fields, J.E. Bayfield	51 (1979) 317
Electron–photon angular correlation in atomic physics, K. Blum and H. Kleinpoppen	52 (1979) 203
Diffusion in molecular crystals, J.M. Chezeau and J.H. Strange	53 (1979) 1

Collisional relaxation of atomic excited states, line broadening and interatomic interactions, E.L. Lewis 58 (1980) 1
Neutron scattering by molecular solids, J.A. Janik 66 (1980) 1
The Rabi frequency in optical spectra, P.L. Knight and P.W. Milonni 66 (1980) 21
Excitation of atomic positive ions by electron impact, R.J.W. Henry 68 (1981) 1
Collision processes of multiply charged ions with atoms, R.K. Janev, L.P. Presnyakov 70 (1981) 1
X-ray attenuation coefficients of elements and mixtures, D.F. Jackson and D.J. Hawkes 70 (1981) 169
Hertzian optics, G.M. Raoult 72 (1981) 57
Laser radiation pressure on free atoms, V.S. Letokhov and V.G. Minogin 73 (1981) 1
Pair creation by internal conversion, P. Schlüter, G. Soff and W. Greiner 75 (1981) 327
Molecular dynamics of ferroelectric crystals of the triglycine sulphate family, J. Stankowski 77 (1981) 1
Electron capture by highly stripped ions, P.T. Greenland 81 (1982) 131
Diffusion in thermotropic liquid crystals, G.J. Krüger 82 (1982) 229
On the variational methods for bound-state and scattering problems, M.A. Abdel-Raouf 84 (1982) 163
Mesic molecules and muon catalysed fusion, L. Bracci and G. Fiorentini 86 (1982) 169
Magnetic anisotropic interactions of nuclei in condensed matter, J.B. Robert and L. Wiesenfeld 86 (1982) 363
Radicals in solution studied by ENDOR and TRIPLE resonance spectroscopy, K. Möbius, M. Plato and W. Lubitz 87 (1982) 171
Positron–atom and positron–molecule collisions, A.S. Ghosh, N.C. Sil and P. Mandal 87 (1982) 313
Vibronic coupling at intersections of covalent and ionic states, A.W. Kleyn, J. Los and E.A. Gislason 90 (1982) 1
Coupled-cluster approach in electronic structure theory of molecules, V. Kvasnička, V. Laurinc and S. Biskupič 90 (1982) 159
Ab initio quantum chemistry in the molecular model of atomic collisions, A. Macías and A. Riera 90 (1982) 299
Densities, density-functionals and electron fluids, S.K. Ghosh and B.M. Deb 92 (1982) 1
Energy transfer in collisions between excited atoms, A. Kopystyńska and L. Moi 92 (1982) 135
Collisional broadening of spectral line shapes in two-photon and multiphoton processes, S. Mukamel 93 (1982) 1
Superradiance: An essay on the theory of collective spontaneous emission, M. Gross and S. Haroche 93 (1982) 301
Theory of the spectrum of the quantised light field, J.D. Cresser 94 (1983) 47
Spin effects in inelastic electron–atom collisions, G.F. Hanne 95 (1983) 95
Angular correlation studies of heavy-particle impact excitation of atoms, K. Blum and H. Kleinpoppen 96 (1983) 251
Electron scattering by molecules II. Experimental methods and data, S. Trajmar, D.F. Register and A. Chutjian 97 (1983) 219
The method of complex coordinate rotation and its applications to atomic collision processes, Y.K. Ho 99 (1983) 1
Statistical quantum electrodynamics of resonant atoms, J.T. Manassah 101 (1983) 359
Wigner's function and other distribution functions in mock phase spaces, N.L. Balazs and B.K. Jennings 104 (1984) 347
On the variational methods for bound-state and scattering problems II, M.A. Abdel-Raouf 108 (1984) 1
Rydberg series of alkaline-earth atoms Ca through Ba. The interplay of laser spectroscopy and multichannel quantum defect analysis, M. Aymar 110 (1984) 163
Electrons in atoms and solids. Proceedings of the Symposium Honoring Professor

Gregory Wannier at the University of Oregon, Eugene, Oregon, May 19 and 20, 1983, R.J. Higgins and J.T. Moseley (editors) 110 (1984) 265
Preface, R. Haydock 110 (1984) 269
Gregory Wannier. Biographical sketch, P.W. Anderson 110 (1984) 271
A nose for depth: Gregory Wannier's style in physics, D.R. Hofstadter 110 (1984) 273
Quantized Hall effect in two-dimensional periodic potentials, D. Thouless 110 (1984) 279
Electronic structure of solids, M.L. Cohen 110 (1984) 293
Chemical pseudopotentials, P.W. Anderson 110 (1984) 311
Electron transport in solids, G.D. Mahan 110 (1984) 321
The transport of slow ions in gases: Experiment, theory, and applications, E.W. McDaniel and L.A. Viehland 110 (1984) 333
The Wannier theory for two electrons escaping from a positive ion, A.R.P. Rau 110 (1984) 369
Atomic parity nonconservation experiments, E.N. Fortson and L.L. Lewis 113 (1984) 289
Perturbative methods in electron– and positron–atom scattering, H.R.J. Walters 116 (1984) 1
State-selective electron capture in atom–highly charged ion collisions, R.K. Janev and H. Winter 117 (1985) 265
Scattering of atomic particles at relativistic energies, B.L. Moiseiwitsch 118 (1985) 133
Dynamical theory of an atom with two or three levels interacting with quantized cavity fields, H.-I. Yoo and J.H. Eberly 118 (1985) 239
Collisional redistribution of radiation, K. Burnett 118 (1985) 339
Supernarrow saturated absorption resonances, V.P. Chebotayev 119 (1985) 75
Applications of the Schwinger variational principle to electron–molecule collisions and molecular photoionization, R.R. Lucchese, K. Takatsuka and V. McKoy 131 (1986) 147
Mechanisms of inner-shell vacancy production in slow ion–atom collisions, U.Wille and R. Hippler 132 (1986) 129
Review of experimental cross sections for K-shell ionization by light ions, H. Paul and J. Muhr 135 (1986) 47
Impressed by light: Mechanical action of radiation on atomic motion, G. Nienhuis 138 (1986) 151
Elastic scattering of γ-rays and X-rays by atoms, P.P. Kane, L. Kissel, R.H. Pratt and S.C. Roy 140 (1986) 75
Atoms in a laser field, N.L. Manakov, V.D. Ovsiannikov and L.P. Rapoport 141 (1986) 319
Distorted-wave methods in electron-impact excitation of atoms and ions, Y. Itikawa 143 (1986) 69
The theory of eletron scattering from polyatomic molecules, F.A. Gianturco and A. Jain 143 (1986) 347
Multiphoton stripping of atoms, M. Crance 144 (1987) 117
On the connectivity criteria in the open-shell coupled-cluster theory for general model spaces, I. Lindgren and D. Mukherjee 151 (1987) 93
Coherent rotational states, their formation and detection, L. Fonda, N. Mankoč-Borštnik and M. Rosina 158 (1988) 159
Electron impact formation of metastable atoms, I.I. Fabrikant, O.B. Shpenik, A.V. Snegursky and A.N. Zavilopulo 159 (1988) 1
The modified Glauber approximation, T.T. Gien 160 (1988) 123
Bound-state excitation in ion–ion collisions, R.S. Walling and J.C. Weisheit 162 (1988) 1
"Atomic" bremsstrahlung, M.Ya. Amusia 162 (1988) 249
Modern trends in the spectroscopy of multicharged ions, L.N. Ivanov, E.P. Ivanova and E.V. Aglitsky 164 (1988) 315
Collisional alignment and orientation of atomic outer shells. I. Direct excitation by electron and atom impact, N. Andersen, J. Gallagher and I.V. Hertel 165 (1988) 1
Asymptotic exchange interactions in ion–atom systems, M.I. Chibisov and R.K. Janev 166 (1988) 1

Dielectronic recombination and related resonance processes, Y. Hahn and K.J. LaGattuta 166 (1988) 195
Stepwise electron and laser excitation of atoms, W.R. MacGillivray and M.C. Standage 168 (1988) 1
Quantum tunneling: a general study in multi-dimensional potential barriers with and without dissipative coupling, M. Razavy and A. Pimpale 168 (1988) 305
The theory of low-energy positron collisions with molecules, E.A.G. Armour 169 (1988) 1
Light-induced drift of Na atoms, H.G.C. Werij and J.P. Woerdman 169 (1988) 145
Molecular collision processes in interstellar clouds, D.R. Flower 174 (1989) 1
Statistical theory of plasma–molecular systems, Yu.L. Klimontovich, H. Wilhelmsson, I.P. Yakimenko and A.G. Zagorodny 175 (1989) 263
Inversion produced and reversed by adiabatic passage, C. Liedenbaum, S. Stolte and J. Reuss 178 (1989) 1
Integral equation approach to atom–diatom exchange processes, M. Baer 178 (1989) 99
Theory of (e, 2e) reactions, F.W. Byron Jr. and C.J. Joachain 179 (1989) 211
Excitation and ionization of atoms by interaction with electrons, positrons, protons and photons, K. Bartschat 180 (1989) 1
The dispersion theory of dispersion forces, G. Feinberg, J. Sucher and C.-K. Au 180 (1989) 83
Theory of vibrational and rotational excitation of polyatomic molecules, A.V. Bogdanov, G.V. Dubrovskii, Yu.E. Gorbachev and V.M. Strelchenya 181 (1989) 121
Application of catastrophe theory to molecules and solitons, F.V. Kusmartsev 183 (1989) 1
The hydrogen atom in a uniform magnetic field – an example of chaos, H. Friedrich and D. Wintgen 183 (1989) 37
Chemi-ionization in thermal-energy binary collisions of optically excited atoms, A.N. Klucharev and V. Vujnović 185 (1990) 55
Spontaneous electron emission from slow atomic collisions, A. Niehaus 186 (1990) 149
The dissociative recombination of molecular ions, J.B.A. Mitchell 186 (1990) 215
Large-N expansions in quantum mechanics, atomic physics and some O(N) invariant systems, A. Chatterjee 186 (1990) 249
Hyperspherical coordinate approach to atom–diatom chemical reactions in the sudden and adiabatic approximations, A. Ohsaki and H. Nakamura 187 (1990) 1
Laser-induced continuum structure, P.L. Knight, M.A. Lauder and B.J. Dalton 190 (1990) 1
Charge exchange in atom–surface collisions, J. Los and J.J.C. Geerlings 190 (1990) 133
Present state of self-induced transparency theory, A.I. Maimistov, A.M. Basharov, S.O. Elyutin and Yu.M. Sklyarov 191 (1990) 1
Excitation equilibria in plasmas; a classification, J.A.M. van der Mullen 191 (1990) 109
Theory of relativistic ion–atom collisions, J. Eichler 193 (1990) 165
Theories of intramolecular vibrational energy transfer, T. Uzer 199 (1991) 73
Rainbow scattering from solid surfaces, A.W. Kleyn and T.C.M. Horn 199 (1991) 191
Laser excitation of electronic wave packets in Rydberg atoms, G. Alber and P. Zoller 199 (1991) 231
Matching methods for single and multiple interfaces: discrete and continuous media, F. García-Moliner and V.R. Velasco 200 (1991) 83

Classical areas of phenomenology (including applications)

High resolution spectroscopy with lasers, W. Demtröder 7 (1973) 223
Low amplitude turbulence, K. Elsässer 8 (1973) 1
Time dependent correlation functions and mode–mode coupling theories, Y. Pomeau and P. Résibois 19 (1975) 63

Several problems of the theory of transition radiation and transition scattering, V.L. Ginzburg and V.N. Tsytovich 49 (1979) 1
Experiments in phenomenological electrodynamics and the electromagnetic energy-momentum tensor, I. Brevik 52 (1979) 133
On the thermodynamics, structure and phase stability of the nonuniform fluid state, F.F. Abraham 53 (1979) 93
On the theory of polarization effects in gas lasers, D. Lenstra 59 (1980) 299
Acoustic cavitation, E.A. Neppiras 61 (1980) 159
Random motion and Brownian rotation, G. Wyllie 61 (1980) 327
Dynamics and ergodicity of the infinite harmonic crystal, J.L. van Hemmen 65 (1980) 43
The theory of $\mathcal{H}$-space, M. Ko, M. Ludvigsen, E.T. Newman and K.P. Tod 71 (1981) 51
Optical volume holography, P.St.J. Russell 71 (1981) 209
Nonlinear model-Boltzmann equations and exact solutions, M.H. Ernst 78 (1981) 1
Stochasticity in quantum systems, G.M. Zaslavsky 80 (1981) 157
The phases of two-dimensional matter, their transitions, and solid-state stability: A perspective via computer simulation of simple atomic systems, F.F. Abraham 80 (1981) 339
Asymptotic solutions and spectral theory of linear wave equations, J.A. Adam 86 (1982) 217
Broadening and saturation in n-photon absorption, L. Allen and C.R. Stroud Jr. 91 (1982) 1
Introduction to real-space renormalization-group methods in critical and chaotic phenomena, B. Hu 91 (1982) 233
Superradiance: An essay on the theory of collective spontaneous emission, M. Gross and S. Haroche 93 (1982) 301
The gauge treatment of gravity, D. Ivanenko and G. Sardanashvily 94 (1983) 1
A CP^5 calculus for space-time fields, L.P. Hughston and T.R. Hurd 100 (1983) 273
Statistical quantum electrodynamics of resonant atoms, J.T. Manassah 101 (1983) 359
Superfluidity and superconductivity in relativistic fermion systems, D. Bailin and A. Love 107 (1984) 325
Statistical properties of single-mode and two-mode ring lasers, S. Singh 108 (1984) 217
SL(2, C) gauge theory of gravitation: conservation laws, N. Nissani 109 (1984) 95
Applications of non-linear methods in astronomy, P.C.H. Martens 115 (1984) 315
Dynamical theory of an atom with two or three levels interacting with quantized cavity fields, H.-I. Yoo and J.H. Eberly 118 (1985) 239
Thermodynamics of laser systems, X. de Hemptinne 122 (1985) 1
Many-body correlations in the problems of electrodynamics of fluids, V.L. Kuzmin 123 (1985) 365
Resonant Joule phenomena in a magnetoplasma, A.B. Shvartsburg 125 (1985) 187
Ground states and critical temperatures in quasi-one-dimensional systems, Yu.A. Firsov, V.N. Prigodin and Chr. Seidel 126 (1985) 245
Chaos in quantum optics, J.R. Ackerhalt, P.W. Milonni and M.-L. Shih 128 (1985) 205
Scattering of atoms by light, A.P. Kazantsev, G.A. Ryabenko, G.I. Surdutovich and V.P. Yakovlev 129 (1985) 75
Physics of open systems, K.H. Li 134 (1986) 1
The theory of thermal relaxation of light dilute particles in a heat bath: Integral and differential elastic collision operators, A.J.M. Garrett 134 (1986) 195
Quasiclassical approach to the virial theorem and to the evaluation of the ground-state energy, E. Papp 136 (1986) 103
Geometrical cluster growth models and kinetic gelation, H.J. Hermann 136 (1986) 153
About the mathematical aspects of the FEL and their relationship to quantum optics, F. Ciocci, G. Dattoli, A. Renieri and A. Torre 141 (1986) 1

Many-particle quantum theory for a class of free-electron devices, W. Becker and J.K. McIver 154 (1987) 205
Rabi oscillations and generalizations, P. Stehle 156 (1987) 67
Photoacoustic and related photothermal techniques, H. Vargas and L.C.M. Miranda 161 (1988) 43
Stimulated emission and relaxation processes in molecular crystals, V.V. Eremenko and L.A. Ogurtsova 166 (1988) 353
Quantum tunneling: a general study in multi-dimensional potential barriers with and without dissipative coupling, M. Razavy and A. Pimpale 168 (1988) 305
Quantum electromagnetics of an electron near mirrors, G. Barton and N.S.J. Fawcett 170 (1988) 1
Inversion produced and reversed by adiabatic passage, C. Liedenbaum, S. Stolte and J. Reuss 178 (1989) 1
Radiating spherical collapse, W.B. Bonnor, A.K.G. de Oliveira and N.O. Santos 181 (1989) 269
Selected topics in fluctuational kinetics of reactions, A.S. Mikhailov 184 (1989) 307
Soliton dynamics in a monomode optical fibre, A. Kumar 187 (1990) 63
Toroid moments in electrodynamics and solid-state physics, V.M. Dubovik and V.V. Tugushev 187 (1990) 145
Hamiltonian chaos in nonlinear optical polarization dynamics, D. David, D.D. Holm and M.V. Tratnik 187 (1990) 281
Introduction to multifractals in dynamical systems theory and fully developed fluid turbulence, J.L. McCauley 189 (1990) 225
Multiple reflection from surface X-ray optics, M.A. Kumakhov and F.F. Komarov 191 (1990) 289
Free-electron laser simulation techniques, T.M. Tran and J.S. Wurtele 195 (1990) 1

Fluids, plasmas and electric discharges

The low temperature thermodynamic properties of superfluid solutions of ^{3}He in ^{4}He, C. Ebner and D.O. Edwards 2 (1971) 77
The phenomenology of vortices in superfluid helium, S. Putterman 4 (1972) 67
Fission and fusion dynamics, W.J. Swiatecki and S. Bjørnholm 4 (1972) 325
Plasma production by laser, P. Mulser, R. Sigel and S. Witkowski 6 (1973) 187
Plasma processes in the Universe, S.A. Kaplan and V.N. Tsytovich 7 (1973) 1
Low amplitude turbulence, K. Elsässer 8 (1973) 1
Plasma physics of the solar atmosphere, S.A. Kaplan, S.B. Pikel'ner and V.N. Tsytovich 15 (1974) 1
Quantum kinetic theory of polyatomic gases, H. Moraal 17 (1975) 225
Plasma turbulent reactors: an astrophysical paradigm, C.A. Norman and D. ter Haar 17 (1975) 307
The ideal Bose–Einstein gas, revisited, R.M. Ziff, G.E. Uhlenbeck and M. Kac 32 (1977) 169
Strong Langmuir turbulence, L.I. Rudakov and V.N. Tsytovich 40 (1978) 1
Langmuir turbulence and modulational instability, S.G. Thornhill and D. ter Haar 43 (1978) 43
The linear Boltzmann equation properties and solutions, C. Syros 45 (1978) 211
Magnetospheric physics, K. Schindler and J. Birn 47 (1978) 109
Nonlinear travelling waves in a homogeneous cold collisionless plasma, A. Decoster 47 (1978) 285
Renormalized turbulence theory for the ion acoustic problem, W. Horton Jr. and D.-I. Choi 49 (1979) 273
On the thermodynamics, structure and phase stability of the nonuniform fluid state, F.F. Abraham 53 (1979) 93
Heavy-ion fusion: Comparison of experimental data with classical trajectory models, J.R. Birkelund, L.E. Tubbs, J.R. Huizenga, J.N. De and D. Sperber 56 (1979) 107
Equilibrium theories of simple liquids, N.K. Ailawadi 57 (1980) 241

On the theory of polarization effects in gas lasers, D. Lenstra 59 (1980) 299
Quantum chromodynamics and the theory of superdense matter, E.V. Shuryak 61 (1980) 71
Laboratory plasma devices, R. Jones 61 (1980) 295
Nodal expansions for strongly coupled classical plasmas, C. Deutsch, Y. Furutani and M.M. Gombert 69 (1981) 85
Diffusion in thermotropic liquid crystals, G.J. Krüger 82 (1982) 229
Physics of ionizing shock waves in magnetic fields, M.A. Liberman and A.L. Velikovich 84 (1982) 1
Density functional formalism at finite temperatures with some applications, U. Gupta and A.K. Rajagopal 87 (1982) 259
Multi-temperature generalized moment method in Boltzmann transport theory, U. Weinert 91 (1982) 297
Densities, density-functionals and electron fluids, S.K. Ghosh and B.M. Deb 92 (1982) 1
Electromagnetic collapse. Equilibrium of a dense pinch, B.E. Meierovich 92 (1982) 83
Linear theory of a cold bounded plasma, O.M. Gradov and L. Stenflo 94 (1983) 111
Non-ideal plasmas of metal vapours, V.A. Alekseev and I.T. Iakubov 96 (1983) 1
Phenomenological theories of liquid ^{3}He, K. Levin and O.T. Valls 98 (1983) 1
Electromagnetic collapse. Problems of stability, emission of radiation and evolution of a dense pinch, B.E. Meierovich 104 (1984) 259
Nonlinear convective motion in plasmas, P.K. Shukla, M.Y. Yu, H.U. Rahman and K.H. Spatschek 105 (1984) 227
The physics of swarms and some basic questions of kinetic theory, K. Kumar 112 (1984) 319
Toroidal hydromagnetics, K. Elsässer 112 (1984) 377
Wave-precession and related nonlinear effects in plasmas, B. Chakraborty, S.N. Paul, M. Khan and B. Bhattacharyya 114 (1984) 181
Shear-Alfvén dynamics of toroidally confined plasmas, R.D. Hazeltine and J.D. Meiss 121 (1985) 1
Thermodynamics of laser systems, X. de Hemptinne 122 (1985) 1
High intensity laser plasma interaction, J.L. Bobin 122 (1985) 173
Nonlinear stability of fluid and plasma equilibria, D.D. Holm, J.E. Marsden, T. Ratiu and A. Weinstein 123 (1985) 1
Many-body correlations in the problems of electrodynamics of fluids, V.L. Kuzmin 123 (1985) 365
Resonant Joule phenomena in a magnetoplasma, A.B. Shvartsburg 125 (1985) 187
Response theory of particle–anti-particle plasmas, V. Kowalenko, N.E. Frankel and K.C. Hines 126 (1985) 109
Magnetohydrodynamic theories of magnetic field reconnection, B.K. Shivamoggi 127 (1985) 99
Helical inverse cascade in three-dimensional turbulence as a fundamental dominant mechanism in mesoscale atmospheric phenomena, E. Levich and E. Tzvetkov 128 (1985) 1
Hamiltonian approach to the description of non-linear plasma phenomena, V.E. Zakharov, S.L. Musher and A.M. Rubenchik 129 (1985) 285
Parametric instabilities in a magnetized plasma, C.S. Liu and V.K. Tripathi 130 (1986) 143
Parametric plasma turbulence, V.P. Silin and V.T. Tikhonchuk 135 (1986) 1
Relativistic nonlinear effects in plasmas, P.K. Shukla, N.N. Rao, M.Y. Yu and N.L. Tsintsadze 138 (1986) 1
Electron holes, ion holes and double layers. Electrostatic phase space structures in theory and experiment, H. Schamel 140 (1986) 161
Electromagnetic neutron–atom interactions, V.F. Sears 141 (1986) 281
Soliton stability in plasmas and hydrodynamics, E.A. Kuznetsov, A.M. Rubenchik and V.E. Zakharov 142 (1986) 103
Conceptual and experimental bases of theories of anomalous transport in tokamaks, F.A. Haas and A. Thyagaraja 143 (1986) 241

The time-dependent ponderomotive force, G.W. Kentwell and D.A. Jones 145 (1987) 319
Statistical physics of dense plasmas: Thermodynamics, transport coefficients and dynamic correlations, S. Ichimaru, H. Iyetomi and S. Tanaka 149 (1987) 91
Certain problems in the theory of developed hydrodynamical turbulence, E. Levich 151 (1987) 129
Plasma expansion into vacuum. A hydrodynamic approach, Ch. Sack and H. Schamel 156 (1987) 311
Ion-acoustic turbulence and anomalous transport, V.Yu. Bychenkov, V.P. Silin and S.A. Uryupin 164 (1988) 119
Relativistic electron beams and beam–plasma interaction, P.C. de Jagher, F.W. Sluijter and H.J. Hopman 167 (1988) 177
Magnetohydrodynamics in solar coronal and laboratory plasmas: A comparative study, P.K. Browning 169 (1988) 329
Fluctuations in nonequilibrium fluids, R. Schmitz 171 (1988) 1
Phase equilibria in binary systems at very high pressures, J.A. Schouten 172 (1989) 33
Double layers in laser-produced plasmas, S. Eliezer and H. Hora 172 (1989) 339
Statistical theory of plasma–molecular systems, Yu.L. Klimontovich, H. Wilhelmsson, I.P. Yakimenko and A.G. Zagorodny 175 (1989) 263
The physics of double layers and their role in astrophysics, M.A. Raadu 178 (1989) 25
Radiative-resonant collective wave–particle interactions, V.N. Tsytovich 178 (1989) 261
The heating of the high latitude ionosphere by high power radio waves, T.R. Robinson 179 (1989) 79
Comptonization in strongly magnetized and nonmagnetized plasmas, G.G. Pavlov, Yu.A. Shibanov and P. Mészáros 182 (1989) 187
Regular mechanisms of electron and ion acceleration in the interaction of strong electromagnetic waves with a plasma, S.V. Bulanov, L.M. Kovrizhnykh and A.S. Sakharov 186 (1990) 1
Interplanetary plasma irregularities and ion acoustic turbulence, L.G. Genkin and L.M. Erukhimov 186 (1990) 97
Excitation equilibria in plasmas; a classification, J.A.M. van der Mullen 191 (1990) 109
Nonlinear drift waves and transport in magnetized plasma, W. Horton 192 (1990) 1
Free-electron laser simulation techniques, T.M. Tran and J.S. Wurtele 195 (1990) 1
Experimental results on current-driven turbulence in plasmas – a survey, H. de Kluiver, N.F. Perepelkin and A. Hirose 199 (1991) 281

Condensed matter: structure, thermal and mechanical properties

Electric coupling properties of acoustic and electric surface waves, C.A.A.J. Greebe, P.A. van Dalen, T.J.B. Swanenburg and J. Wolter 1 (1971) 235
The low temperature thermodynamic properties of superfluid solutions of ^{3}He in ^{4}He, C. Ebner and D.O. Edwards 2 (1971) 77
The phenomenology of vortices in superfluid helium, S. Putterman 4 (1972) 67
On the problem of high temperature superconductivity, V.L. Ginzburg and D.A. Kirzhnits 4 (1972) 343
Theoretical methods in the critical region of a phase transition, R. Brout 10 (1974) 1
Brillouin zone effects on the critical temperature of superconductors and some related normal metal properties, E.E. Havinga and M.H. van Maaren 10 (1974) 107
Thermodynamics of spin systems in paramagnetic crystals, W.Th. Wenckebach, T.J.B. Swanenburg and N.J. Poulis 14 (1974) 181
Studies of a non-linear lattice, M. Toda 18 (1975) 1

Phase diagrams of liquid helium mixtures and metamagnets: experiment and mean field theory, J.M. Kincaid and E.G.D. Cohen 22 (1975) 57
Structure and excitations in liquid and solid surfaces, R.C. Brown and N.H. March 24 (1976) 77
Surface phenomena investigated by nuclear magnetic resonance, H. Pfeifer 26 (1976) 293
Solid and liquid nitrogen, T.A. Scott 27 (1976) 89
New types of reinforced composite materials, J.G. Morley 28 (1976) 245
An introduction to the fundamentals of the renormalization group in critical phenomena, M.N. Barber 29 (1977) 1
Nuclear dipolar magnetic ordering, M. Goldman 32 (1977) 1
Helium films from two to three dimensions, J.G. Dash 38 (1978) 177
Molecular dynamical calculations of energy transport in crystalline solids, R.A. MacDonald and D.H. Tsai 46 (1978) 1
On the description of transport phenomena, K.D. Schotte 46 (1978) 93
Quantum field theory of crystals and extended objects, M. Wadati 50 (1979) 87
Scaling theory of percolation clusters, D. Stauffer 54 (1979) 1
Elastic properties of magnetic materials, M.E. Lines 55 (1979) 133
Shock compression of solids, L. Davison and R.A. Graham 55 (1979) 255
Surfactant-water liquid crystal phases, G.J.T. Tiddy 57 (1980) 1
Equilibrium theories of simple liquids, N.K. Ailawadi 57 (1980) 241
Structural properties and lattice dynamics of 5d transition metal antifluorite crystals, R.L. Armstrong 57 (1980) 343
Temperature dependent electronic conduction in semiconductors, G.G. Roberts, N. Apsley and R.W. Munn 60 (1980) 59
Nuclear magnetic resonance of solid polymers, V.J. McBrierty and D.C. Douglass 63 (1980) 61
Electronic transitions, crystal field effects and phonons in UO_2, J. Schoenes 63 (1980) 301
Neutron scattering by molecular solids, J.A. Janik 66 (1980) 1
Physical mechanisms of sputtering, M.W. Thompson 69 (1981) 335
Molecular dynamics of ferroelectric crystals of the triglycine sulphate family, J. Stankowski 77 (1981) 1
Semiclassical statistical mechanics of fluids, Y. Singh and S.K. Sinha 79 (1981) 213
Magnetic resonance and relaxation in structurally incommensurate systems, R. Blinc 79 (1981) 331
Fundamental aspects of neutron optics, V.F. Sears 82 (1982) 1
Diffusion in thermotropic liquid crystals, G.J. Krüger 82 (1982) 229
The use of positive muons in metal physics, E. Karlsson 82 (1982) 271
Variational and perturbation theories made planar, A.D. Jackson, A. Lande and R.A. Smith 86 (1982) 55
Nuclear magnetic resonance and Mossbauer spectroscopy of glasses, W. Müller-Warmuth and H. Eckert 88 (1982) 91
Dynamical properties of defects in solids, O. Kanert 91 (1982) 183
Electromagnetic radiation of relativistic channeling particles (the Kumakhov effect), V.V. Beloshitsky and F.F. Komarov 93 (1982) 117
Alkali halide clusters and microcrystals, T.P. Martin 95 (1983) 167
Mechanisms of deformation under shock loading, M.A. Mogilevsky 97 (1983) 357
Phenomenological theories of liquid ^{3}He, K. Levin and O.T. Valls 98 (1983) 1
Equilibrium critical phenomena in binary liquid mixtures, A. Kumar, H.R. Krishnamurthy and E.S.R. Gopal 98 (1983) 57
Kinetic many-body theory of short-lived large energy fluctuations of small numbers of particles in solids and its applications, Yu.L. Khait 99 (1983) 237
The quasiclassical approach to superfluid ^{3}He, J.W. Serene and D. Rainer 101 (1983) 221

Equation of state theories of condensed matter up to about 10 TPa, B.K. Godwal, S.K. Sikka and R. Chidambaram 102 (1983) 121
Non-linear effects in quasi-one-dimensional models of condensed matter theory, V.G. Makhankov and V.K. Fedyanin 104 (1984) 1
Calorimetric studies of phase transitions in two-dimensional physisorbed films, R. Marx 125 (1985) 1
Ground states and critical temperatures in quasi-one-dimensional systems, Yu.A. Firsov, V.N. Prigodin and Chr. Seidel 126 (1985) 245
Monte Carlo simulation of quantum statistical lattice models, H. De Raedt and A. Lagendijk 127 (1985) 233
Landau theory of the nematic–isotropic phase transition, E.F. Gramsbergen, L. Longa and W.H. de Jeu 135 (1986) 195
Thermodynamic aspects of superionic conductivity, Yu.Ya. Gurevich and Yu.I. Kharkats 139 (1986) 201
Dechanneling, flux-peaking and energy losses of fast charged particles penetrating through thick crystals, V.V. Beloshitsky, F.F. Komarov and M.A. Kumakhov 139 (1986) 293
Anomalous phonon dispersion in helium II, R. Sridhar 146 (1987) 259
Diffusion in regular and disordered lattices, J.W. Haus and K.W. Kehr 150 (1987) 263
Monochromators for X-ray synchrotron radiation, R. Caciuffo, S. Melone, F. Rustichelli and A. Boeuf 152 (1987) 1
Dynamics at the solid–liquid transition: Experiments at the freezing point, J.H. Bilgram 153 (1987) 1
Amorphisation in solid metallic systems, K. Samwer 161 (1988) 1
A unifying approach to lattice dynamical and electronic properties of solids, C. Falter 164 (1988) 1
A theory of sound propagation in disordered one-dimensional metals, E.A. Kaner and Y.V. Tarasov 165 (1988) 189
Glassy disordered systems: topology, atomic dynamics and localized electron states, M.I. Klinger 165 (1988) 275
Aperiodic crystals: a contradictio in terminis?, T. Janssen 168 (1988) 55
The ANNNI model – theoretical analysis and experimental application, W. Selke 170 (1988) 213
The electron–phonon interaction and itinerant electron magnetism, D.J. Kim 171 (1988) 129
Phase equilibria in binary systems at very high pressures, J.A. Schouten 172 (1989) 33
Dynamical correlations and collective excitations in liquids, F. Yoshida and S. Takeno 173 (1989) 301
Optical radiation form shock-compressed materials and interfaces, B. Svendsen, J.D. Bass and T.J. Ahrens 180 (1989) 333
The electron–phonon drag and transport phenomena in semiconductors, Yu.G. Gurevich and O.L. Mashkevich 181 (1989) 327
Common trends in statistical physics and field theory, Proc. Cargèse Advanced Research Workshop, C. Itzykson, S. Kirkpatrick, G. Parisi, N. Sourlas and M.A. Virasoro (editors) 184 (1989) 99
Problems and issues in the RVB theory of high T_c superconductivity, P.W. Anderson 184 (1989) 195
Dynamical phase transitions and spin glasses, B. Derrida 184 (1989) 207
Delocalization in the quantum Hall regime, A.M.M. Pruisken 184 (1989) 213
Experimental studies of structurally incommensurate crystal phases, H.Z. Cummins 185 (1990) 211

Condensed matter: electronic structure, electrical, magnetic and optical properties

Electric coupling properties of acoustic and electric surface waves, C.A.A.J. Greebe, P.A. van Dalen, T.J.B. Swanenburg and J. Wolter 1 (1971) 235
On the problem of high temperature superconductivity, V.L. Ginzburg and D.A. Kirzhnits 4 (1972) 343

The use of positrons for the study of solids, I.Ya. Dekhtyar 9 (1974) 243
Derivation and application of the boson method in superconductivity, L. Leplae, H. Umezawa and F. Mancini 10 (1974) 151
Mössbauer effect in iron and dilute iron based alloys, F. van der Woude and G.A. Sawatzky 12 (1974) 335
Electrons in disordered systems and the theory of localization, D.J. Thouless 13 (1974) 93
Dynamics of magnetic flux structures in superconductors, R.P. Huebener 13 (1974) 143
Emission of polarized electrons from magnetic materials, H.C. Siegmann 17 (1975) 37
Lattice dynamic effects in electron paramagnetic resonance, K.N. Shrivastava 20 (1975) 137
Exchange interactions in magnetic insulators, K.W.H. Stevens 24 (1976) 1
Superconductivity and macroscopic quantum phenomena, D. Rogovin and M. Scully 25 (1976) 175
Theory of internal photoemission in sandwich structures, J. Kadlec 26 (1976) 69
Surface phenomena investigated by nuclear magnetic resonance, H. Pfeifer 26 (1976) 293
Amorphous metals and their superconductivity, G. Bergmann 27 (1976) 159
Electronic states in solids investigated by means of synchrotron radiation, E.E. Koch, C. Kunz and B. Sonntag 29 (1977) 153
Nuclear quadrupole double resonance, D.T. Edmonds 29 (1977) 233
Inelastic electron tunneling, P.K. Hansma 30 (1977) 145
Nuclear dipolar magnetic ordering, M. Goldman 32 (1977) 1
Nuclear magnetic resonance in liquid metals and alloys, J.M. Titman 33 (1977) 1
Condensation effects of excitons, E. Hanamura and H. Haug 33 (1977) 209
Jahn–Teller effects in paramagnetic crystals, C.A. Bates 35 (1978) 187
Quasi-one-dimensional conductors, G.A. Toombs 40 (1978) 181
On linear response theory and area preserving mappings, J.F.C. van Velsen 41 (1978) 135
The isothermal local resistivity and its connection to different theories, N. Szabo 41 (1978) 329
The dielectric constant of a composite material – A problem in classical physics, D.J. Bergman 43 (1978) 377
Optical properties of semiconductors under intense laser fields, R. Luzzi and L.C.M. Miranda 43 (1978) 423
Electronic structure, magnetic exchange, and electrical transport properties of the magnetic compounds EuS, GdS and GdP, P. Wachter 44 (1978) 159
On the description of transport phenomena, K.D. Schotte 46 (1978) 93
Dilute magnetic alloys with transition metals as host, K.H. Fischer 47 (1978) 225
The role of structure in the magnetic properties of amorphous alloys, R.W. Cochrane, R. Harris and M.J. Zuckermann 48 (1978) 1
Valence transitions and intermediate valence states in rare earth and actinide materials, J.M. Robinson 51 (1979) 1
Superionic conductors: transitions, structures, dynamics, J.B. Boyce and B.A. Huberman 51 (1979) 189
Elastic properties of magnetic materials, M.E. Lines 55 (1979) 133
Shock compression of solids, L. Davison and R.A. Graham 55 (1979) 255
Light scattering near phase transition points in solids, V.L. Ginzburg, A.P. Levanyuk and A.A. Sobyanin 57 (1980) 151
Nuclear magnetism of liquid systems in the earth field range, G.J. Béné 58 (1980) 213
Temperature dependent electronic conduction in semiconductors, G.G. Roberts, N. Apsley and R.W. Munn 60 (1980) 59
Nuclear magnetic resonance of solid polymers, V.J. McBrierty and D.C. Douglass 63 (1980) 61
Renormalization techniques for quantum spin systems. Ground-state energies, W.J. Caspers 63 (1980) 223

Recombination in narrow-gap semiconductors, G. Nimtz 63 (1980) 265
Electronic transitions, crystal field effects and phonons in UO_2, J. Schoenes 63 (1980) 301
A quantum approach to the parametric excitation problem in solids, Vo Hongh Anh 64 (1980) 1
Applications of Raman spectroscopy, J.G. Grasselli, M.K. Snavely and B.J. Bulkin 65 (1980) 231
Electronic structure of uranium monochalcogenides and uranium monopnictides, J. Schoenes 66 (1980) 187
Common trends in particle and condensed matter physics. Proceedings of Les Houches Winter Advanced Study Institute, February 1980, E. Brézin, J.-L. Gervais and G. Toulouse (editors) 67 (1980) 1
Introduction to localization, D.J. Thouless 67 (1980) 5
Conductivity scaling and localization, E. Abrahams 67 (1980) 9
Disordered electronic system as a model of interacting matrices, F. Wegner 67 (1980) 15
Mean field theory for spin glasses, G. Parisi 67 (1980) 25
The random energy model, B. Derrida 67 (1980) 29
Towards a mean field theory of spin glasses: The TAP route revisited, C. De Dominicis 67 (1980) 37
On the connection between spin glasses and gauge field theories, G. Toulouse and J. Vannimenus 67 (1980) 47
Monte Carlo simulations of lattice gauge theories, C. Rebbi 67 (1980) 55
Large dimension expansions and transition patterns in lattice gauge theories, J.-M. Drouffe 67 (1980) 63
Progress in lattice gauge theory, J.B. Kogut 67 (1980) 67
Phase structure of the Z(2) gauge and matter theory, D. Horn 67 (1980) 103
General introduction to confinement, S. Mandelstam 67 (1980) 109
A simple picture of the weak-to-strong coupling transition in quantum chromodynamics, C.G. Callan Jr. 67 (1980) 123
Quantum fluctuations in a multi-instanton background, B.A. Berg 67 (1980) 133
Some comments on the crossover between strong and weak coupling in SU(2) pure Yang–Mills theory, J. Fröhlich 67 (1980) 137
String dynamics in Q.C.D., J.-L. Gervais and A. Neveu 67 (1980) 151
Dual models and strings: the critical dimension, C.B. Thorn 67 (1980) 163
Duality and finite size effects in six vertex models, C.B. Thorn 67 (1980) 171
Scaling at a bifurcation point, M. Nauenberg and D. Scalapino 67 (1980) 177
Some implications of a cosmological phase transition, T.W.B. Kibble 67 (1980) 183
Optical properties of highly excited direct gap semiconductors, C. Klingshirn and H. Haug 70 (1981) 315
Hertzian optics, G.M. Raoult 72 (1981) 57
Flux-flow noise in superconductors, J.R. Clem 75 (1981) 1
Molecular dynamics of ferroelectric crystals of the triglycine sulphate family, J. Stankowski 77 (1981) 1
Electronic properties of small metallic particles, J.A.A.J. Perenboom, P. Wyder and F. Meier 78 (1981) 173
Magnetic resonance and relaxation in structurally incommensurate systems, R. Blinc 79 (1981) 331
Brillouin–Mandelstam scattering from thermal and excited magnons, A.S. Borovik-Romanov and N.M. Kreines 81 (1982) 351
Diffusion in thermotropic liquid crystals, G.J. Krüger 82 (1982) 229
Electron spin resonance of impurities in magnetic insulators, F. Mehran and K.W.H. Stevens 85 (1982) 123
Many body interactions in binary ionic solids, R.K. Singh 85 (1982) 259

Electron localization and hopping conductivity in one-dimensional disordered systems, A.A. Gogolin 86 (1982) 1
Magnetic anisotropic interactions of nuclei in condensed matter, J.B. Robert and L. Wiesenfeld 86 (1982) 363
Radicals in solution studied by ENDOR and TRIPLE resonance spectroscopy, K. Möbius, M. Plato and W. Lubitz 87 (1982) 171
Density functional formalism at finite temperatures with some applications, U. Gupta and A.K. Rajagopal 87 (1982) 259
Nuclear magnetic resonance and Mossbauer spectroscopy of glasses, W. Müller-Warmuth and H. Eckert 88 (1982) 91
Non-equilibrium superconductivity in homogeneous thin films, J.A. Pals, K. Weiss, P.M.T.M. van Attekum, R.E. Horstman and J. Wolter 89 (1982) 323
Proximity electron tunneling spectroscopy, E.L. Wolf and G.B. Arnold 91 (1982) 31
Kinetics of interacting quasiparticles in strong external fields, V.P. Seminozhenko 91 (1982) 103
Dynamical properties of defects in solids, O. Kanert 91 (1982) 183
Atomic quantum diffusion, tunneling states and some related phenomena in condensed systems, M.I. Klinger 94 (1983) 183
Non-ideal plasmas of metal vapours, V.A. Alekseev and I.T. Iakubov 96 (1983) 1
Phenomenological theories of liquid ^{3}He, K. Levin and O.T. Valls 98 (1983) 1
Coherent magnetic breakdown, M.I. Kaganov and A.A. Slutskin 98 (1983) 189
Equation of state theories of condensed matter up to about 10 TPa, B.K. Godwal, S.K. Sikka and R. Chidambaram 102 (1983) 121
Common trends in particle and condensed matter physics. Proceedings of Les Houches Winter Advanced Study Institute, February 1983, C. Itzykson, Y. Pomeau and N. Sourlas (editors) 103 (1984) 1
A rigorous approach to Anderson localization, J. Fröhlich and Th. Spencer 103 (1984) 9
Anderson transition and nonlinear σ-models, F. Wegner 103 (1984) 27
Can disorder induce several phase transitions, B. Derrida 103 (1984) 29
Electrons in random and almost-periodic potentials, B. Souillard 103 (1984) 41
Strip-these for random systems, J. Vannimenus and J.P. Nadal 103 (1984) 47
Statistical mechanics of equilibrium crystal shapes: Interfacial phase diagrams and phase transitions, C. Rottman and M. Wortis 103 (1984) 59
Conceptual problems of weak and strong turbulence, D. Ruelle 103 (1984) 81
The strong coupling limit of K.A.M. theory and the onset of turbulence, E.D. Siggia 103 (1984) 87
Chaotic behaviours in the unfolding of singular vector fields, P.H. Coullet 103 (1984) 95
The transition to turbulence in "wide systems", P. Manneville 103 (1984) 107
Transition to turbulence in systems with few degrees of freedom, P. Collet 103 (1984) 121
Application of the concept of transition by breaking of analyticity to the Peierls chain, S. Aubry 103 (1984) 125
Trajectories of the twist map with minimal action and connection with incommensurate structures, S. Aubry 103 (1984) 127
Quantum noise and strange attractors, R. Graham 103 (1984) 143
Harmonic analysis in fractal spaces: Random walk statistics and spectrum of the Schrödinger equation, R. Rammal 103 (1984) 151
Folding paper and thermodynamics, M. Mendes France 103 (1984) 161
The formation of fractal objects, M. Nauenberg 103 (1984) 173
The integrability problem and the Hamilton–Jacobi equation: A review, G. Gallavotti 103 (1984) 177
First results from the Ising Monte Carlo processor, R. Pearson 103 (1984) 185
Numerical simulation on the ICL distributed array processor, D.J. Wallace 103 (1984) 191

The strategy for computing the hadronic mass spectrum, G. Parisi 103 (1984) 203
Hadron masses in lattice QCD: A progress report, R. Petronzio 103 (1984) 213
Finite fermion density on the lattice, P. Hasenfratz and F. Karsch 103 (1984) 219
Self-avoiding walks, L. Peliti 103 (1984) 225
Analytic calculation of the mass gap in O(n) non-linear σ-models, M. Lüscher 103 (1984) 233
Random surfaces and the quantum Liouville theory, A. Neveu 103 (1984) 235
The quantum inverse method and the non-local charges in sigma models, H.J. de Vega 103 (1984) 243
Magnetic excitations in solids, C.E. Patton 103 (1984) 251
Non-linear effects in quasi-one-dimensional models of condensed matter theory, V.G. Makhankov and V.K. Fedyanin 104 (1984) 1
Weak localization in thin films. A time-of-flight experiment with conduction electrons, G. Bergmann 107 (1984) 1
Thermodynamic perturbation theory for systems with strong local correlations, H. Keiter and G. Morandi 109 (1984) 227
Mutual phase-locking in Josephson junction arrays, A.K. Jain, K.K. Likharev, J.E. Lukens and J.E. Sauvageau 109 (1984) 309
Electrons in atoms and solids. Proceedings of the Symposium Honoring Professor Gregory Wannier at the University of Oregon, Eugene, Oregon, May 19 and 20, 1983, R.J. Higgins and J.T. Moseley (editors) 110 (1984) 265
Preface, R. Haydock 110 (1984) 269
Gregory Wannier. Biographical sketch, P.W. Anderson 110 (1984) 271
A nose for depth: Gregory Wannier's style in physics, D.R. Hofstadter 110 (1984) 273
Quantized Hall effect in two-dimensional periodic potentials, D. Thouless 110 (1984) 279
Electronic structure of solids, M.L. Cohen 110 (1984) 293
Chemical pseudopotentials, P.W. Anderson 110 (1984) 311
Electron transport in solids, G.D. Mahan 110 (1984) 321
The transport of slow ions in gases: Experiment, theory, and applications, E.W. McDaniel and L.A. Viehland 110 (1984) 333
The Wannier theory for two electrons escaping from a positive ion, A.R.P. Rau 110 (1984) 369
Photoemission experiments on copper, R. Courths and S. Hüfner 112 (1984) 53
Theory of elementary excitations and the metal–insulator transition on semiconductor surfaces, A. Muramatsu and W. Hanke 113 (1984) 97
Electromagnetic interactions of molecules with metal surfaces, G.W. Ford and W.H. Weber 113 (1984) 195
Mean-field theories of spin glasses, D. Chowdhury and A. Mookerjee 114 (1984) 1
Magnetic superconductors: Model theories and experimental properties of rare-earth compounds, K.N. Shrivastava and K.P. Sinha 115 (1984) 93
Charge density wave conduction: A novel collective transport phenomenon in solids, G. Grüner and A. Zettl 119 (1985) 117
Excitons and plasmons in metals, semiconductors and insulators: A unified approach, I. Egri 119 (1985) 363
The dispersion of excitons, polaritons and biexcitons in direct-gap semiconductors, B. Hönerlage, R. Lévy, J.B. Grun, C. Klingshirn and K. Bohnert 124 (1985) 161
Quantum electrodynamics and channeling in crystals, J.C. Kimball and N. Cue 125 (1985) 69
Response theory of particle–anti-particle plasmas, V. Kowalenko, N.E. Frankel and K.C. Hines 126 (1985) 109
Unusual band structure, wave functions and electrical conductance in crystals with incommensurate periodic potentials, J.B. Sokoloff 126 (1985) 189

Ground states and critical temperatures in quasi-one-dimensional systems, Yu.A. Firsov, V.N. Prigodin and Chr. Seidel 126 (1985) 245
Optical magnetic excitations, V.V. Eremenko, Yu.G. Litvinenko and E.V. Matyushkin 132 (1986) 55
Relaxation phenomena in magnets at ultra low temperatures, S.O. Gladkov 132 (1986) 277
Relaxation phenomena in magnets at ultra low temperatures. II, S.O. Gladkov 139 (1986) 159
Weak localization: the quasiclassical theory of electrons in a random potential, S. Chakravarty and A. Schmid 140 (1986) 193
High-frequency phenomena in semiconductor superlattices, F.G. Bass and A.P. Tetervov 140 (1986) 237
The magnetic, optical, and transport properties of representatives of a class of magnetic semiconductors: the europium chalcogenides, A. Mauger and C. Godart 141 (1986) 51
Approximate treatments of intermediate valence and heavy fermion model systems, G. Czycholl 143 (1986) 277
Quantum transport equation for electric and magnetic fields, G.D. Mahan 145 (1987) 251
The spatial dispersion of conductivity in one-dimensional disordered metals, E.A. Kaner and L.V. Chebotarev 150 (1987) 179
Hyper-Raman scattering by vibrational excitations in crystals, glasses and liquids, V.N. Denisov, B.N. Mavrin and V.B. Podobedov 151 (1987) 1
On some kinetic phenomena in ordered and disordered substances, S.O. Gladkov 152 (1987) 73
Polarons, T.K. Mitra, A. Chatterjee and S. Mukhopadhyay 153 (1987) 91
Long-range impurity states in magnetic crystals, M.A. Ivanov, V.M. Loktev and Yu.G. Pogorelov 153 (1987) 209
Magnetism and spatial order in transition metal alloys: Experimental and theoretical aspects, M.C. Cadeville and J.L. Morán-López 153 (1987) 331
Magneto-optics of antiferromagnets, V.V. Eremenko and N.F. Kharchenko 155 (1987) 379
Polaron transport in quasi-1d organic conductors and in some narrow band systems, A.A. Gogolin 157 (1988) 347
Non-equilibrium properties of charge carriers with arbitrary coupling to the lattice in semiconductors, V.M. Fomin and E.P. Pokatilov 158 (1988) 205
Amorphisation in solid metallic systems, K. Samwer 161 (1988) 1
A unifying approach to lattice dynamical and electronic properties of solids, C. Falter 164 (1988) 1
Electron localization in quasi-one-dimensional organic conductors, A.A. Gogolin 166 (1988) 269
Stimulated emission and relaxation processes in molecular crystals, V.V. Eremenko and L.A. Ogurtsova 166 (1988) 353
The electron transport properties of metallic glasses, M.A. Howson and B.L. Gallagher 170 (1988) 265
Spectral densities and nuclear spin relaxation in solids, P. Beckmann 171 (1988) 85
The electron–phonon interaction and itinerant electron magnetism, D.J. Kim 171 (1988) 129
Stability of superconducting magnet systems subject to thermal disturbances, V.R. Chechetkin and A.S. Sigov 176 (1989) 1
The optical properties of luminescence centres in silicon, G. Davies 176 (1989) 83
Optical radiation form shock-compressed materials and interfaces, B. Svendsen, J.D. Bass and T.J. Ahrens 180 (1989) 333
Some exact results for dilute mixed-valent and heavy-fermion systems, P. Schlottmann 181 (1989) 1
The kinetics of nuclear magnetically ordered systems, S.O. Gladkov 182 (1989) 211
Common trends in statistical physics and field theory, Proc. Cargèse Advanced Research Workshop, C. Itzykson, S. Kirkpatrick, G. Parisi, N. Sourlas and M.A. Virasoro (editors) 184 (1989) 99
Problems and issues in the RVB theory of high T_c superconductivity, P.W. Anderson 184 (1989) 195
Dynamical phase transitions and spin glasses, B. Derrida 184 (1989) 207
Delocalization in the quantum Hall regime, A.M.M. Pruisken 184 (1989) 213

Toroid moments in electrodynamics and solid-state physics, V.M. Dubovik and V.V. Tugushev 187 (1990) 145
Nonlinear electromagnetic–spin waves, F.G. Bass and N.N. Nasonov 189 (1990) 165
Theoretical investigation of high-temperature superconductivity, A.S. Davydov 190 (1990) 191
Magnetic solitons, A.M. Kosevich, B.A. Ivanov and A.S. Kovalev 194 (1990) 117
Electromagnetic interactions in condensed matter, a Festschrift volume of Physics Reports on the occasion of the 60th birthday of Professor V.M. Agranovich, A.A. Abrikosov, T.A. Leskova and D.L. Mills, eds 194 (1990) 239
Cyclotron parametric resonance in semiconductors, I.E. Aronov and O.N. Baranetz 197 (1990) 99
Quantum coherent effects, phase transitions, and the dissipative dynamics of ultra small tunnel junctions, G. Schön and A.D. Zaikin 198 (1990) 237
Magnetic resonance in high-temperature superconductors, K.N. Shrivastava 200 (1991) 51

Cross-disciplinary physics and related areas of science and technology

Some applications of particle accelerators to cancer research and treatment, P.R. Almond 17 (1975) 1
X-ray analysis and the structure of the components of plant cell walls, R.D. Preston 21 (1975) 183
Radiopharmaceuticals, H.L. Atkins 21 (1975) 315
Polymers and scaling, D.S. McKenzie 27 (1976) 35
What can low-energy nuclear physics tell us about elementary particles and quarks?, L.H. Ryder 34 (1977) 55
Archaeological involvements of physics, M.J. Aitken 40 (1978) 277
Physical chemistry of surfactant association, H. Wennerström and B. Lindman 52 (1979) 1
Nuclear reactor safety, J.L. Head, A.J.H. Goddard and P.J. Grant 53 (1979) 249
Applications of ESR in photosynthesis, A.J. Hoff 54 (1979) 75
Laser–Raman spectroscopy of living cells, S.J. Webb 60 (1980) 201
Acoustic cavitation, E.A. Neppiras 61 (1980) 159
Auditory physics. Physical principles in hearing theory. I, E. de Boer 62 (1980) 87
Nuclear magnetic resonance of solid polymers, V.J. McBrierty and D.C. Douglass 63 (1980) 61
Applications of Raman spectroscopy, J.G. Grasselli, M.K. Snavely and B.J. Bulkin 65 (1980) 231
Common trends in particle and condensed matter physics. Proceedings of Les Houches Winter Advanced Study Institute, February 1980, E. Brézin, J.-L. Gervais and G. Toulouse (editors) 67 (1980) 1
Introduction to localization, D.J. Thouless 67 (1980) 5
Conductivity scaling and localization, E. Abrahams 67 (1980) 9
Disordered electronic system as a model of interacting matrices, F. Wegner 67 (1980) 15
Mean field theory for spin glasses, G. Parisi 67 (1980) 25
The random energy model, B. Derrida 67 (1980) 29
Towards a mean field theory of spin glasses: The TAP route revisited, C. De Dominicis 67 (1980) 37
On the connection between spin glasses and gauge field theories, G. Toulouse and J. Vannimenus 67 (1980) 47
Monte Carlo simulations of lattice gauge theories, C. Rebbi 67 (1980) 55
Large dimension expansions and transition patterns in lattice gauge theories, J.-M. Drouffe 67 (1980) 63
Progress in lattice gauge theory, J.B. Kogut 67 (1980) 67
Phase structure of the Z(2) gauge and matter theory, D. Horn 67 (1980) 103
General introduction to confinement, S. Mandelstam 67 (1980) 109

A simple picture of the weak-to-strong coupling transition in quantum chromodynamics, C.G. Callan Jr. 67 (1980) 123
Quantum fluctuations in a multi-instanton background, B.A. Berg 67 (1980) 133
Some comments on the crossover between strong and weak coupling in SU(2) pure Yang–Mills theory, J. Fröhlich 67 (1980) 137
String dynamics in Q.C.D., J.-L. Gervais and A. Neveu 67 (1980) 151
Dual models and strings: the critical dimension, C.B. Thorn 67 (1980) 163
Duality and finite size effects in six vertex models, C.B. Thorn 67 (1980) 171
Scaling at a bifurcation point, M. Nauenberg and D. Scalapino 67 (1980) 177
Some implications of a cosmological phase transition, T.W.B. Kibble 67 (1980) 183
Fusion barriers, empirical and theoretical: Evidence for dynamic deformation in subbarrier fusion, L.C. Vaz, J.M. Alexander and G.R. Satchler 69 (1981) 373
X-ray attenuation coefficients of elements and mixtures, D.F. Jackson and D.J. Hawkes 70 (1981) 169
The physics of the singing voice, G.J. Troup 74 (1981) 379
New stochastic methods in physics, C. DeWitt-Morette and K.D. Elworthy (editors) 77 (1981) 121
A stepping stone to stochastic analysis, C. DeWitt-Morette and K.D. Elworthy 77 (1981) 125
Topics in quantum probability, L. Accardi 77 (1981) 169
Stochastic methods in quantum field theory and hydrodynamics, S. Albeverio and R. Høegh-Krohn 77 (1981) 193
Qualitative theory of stochastic systems and its applications in physics, L. Arnold 77 (1981) 215
Generalized Poisson processes in quantum mechanics and field theory, Ph. Combe, R. Rodriguez, R. Høegh-Krohn, M. Sirugue and M. Sirugue-Collin 77 (1981) 221
The polaron problem and large deviations, M.D. Donsker and S.R.S. Varadhan 77 (1981) 235
Markov processes, random fields and Dirichlet spaces, E.B. Dynkin 77 (1981) 239
Rotational Brownian motion of an asymmetric top, G.W. Ford 77 (1981) 249
On a stochastic calculus related to Dirichlet forms and distorted Brownian motions, M. Fukushima 77 (1981) 255
Structural aspects of stochastic mechanics and stochastic field theory, F. Guerra 77 (1981) 263
The semiclassical limit of quantum mechanics: A qualitative theory via stochastic mechanics, G. Jona-Lasinio, F. Martinelli and E. Scoppola 77 (1981) 313
Stochastic processes associated with quantum systems, A. Klein 77 (1981) 329
Quantum stochastic processes I, J.T. Lewis 77 (1981) 339
Quantum stochastic processes II, A. Frigerio 77 (1981) 351
A stochastic process with metastability and complex free energy, L.S. Schulman 77 (1981) 359
Energy forms, Schroedinger theory, processes, L. Streit 77 (1981) 363
Low energy excitations in amorphous metals, H. v. Löhneysen 79 (1981) 161
Acoustical characteristics of porous materials, K. Attenborough 82 (1982) 179
Lifetime measurements in the 10^{-13}s range, G. Bellini, L. Foà, M.A. Giorgi, J. Sandweiss, L. Montanet, S. Reucroft and J.D. Prentice 83 (1982) 1
Particle detectors, K. Kleinknecht 84 (1982) 85
Searches of fractionally charged particles in matter with the magnetic levitation technique, M. Marinelli and G. Morpurgo 85 (1982) 161
Mesic molecules and muon catalysed fusion, L. Bracci and G. Fiorentini 86 (1982) 169
Astronomical speckle imaging, R.H.T. Bates 90 (1982) 203
Common trends in particle and condensed matter physics. Proceedings of Les Houches Winter Advanced Study Institute, February 1983, C. Itzykson, Y. Pomeau and N. Sourlas (editors) 103 (1984) 1
A rigorous approach to Anderson localization, J. Fröhlich and Th. Spencer 103 (1984) 9
Anderson transition and nonlinear σ-models, F. Wegner 103 (1984) 27

Can disorder induce several phase transitions, B. Derrida 103 (1984) 29
Electrons in random and almost-periodic potentials, B. Souillard 103 (1984) 41
Strip-these for random systems, J. Vannimenus and J.P. Nadal 103 (1984) 47
Statistical mechanics of equilibrium crystal shapes: Interfacial phase diagrams and phase transitions, C. Rottman and M. Wortis 103 (1984) 59
Conceptual problems of weak and strong turbulence, D. Ruelle 103 (1984) 81
The strong coupling limit of K.A.M. theory and the onset of turbulence, E.D. Siggia 103 (1984) 87
Chaotic behaviours in the unfolding of singular vector fields, P.H. Coullet 103 (1984) 95
The transition to turbulence in "wide systems", P. Manneville 103 (1984) 107
Transition to turbulence in systems with few degrees of freedom, P. Collet 103 (1984) 121
Application of the concept of transition by breaking of analyticity to the Peierls chain, S. Aubry 103 (1984) 125
Trajectories of the twist map with minimal action and connection with incommensurate structures, S. Aubry 103 (1984) 127
Quantum noise and strange attractors, R. Graham 103 (1984) 143
Harmonic analysis in fractal spaces: Random walk statistics and spectrum of the Schrödinger equation, R. Rammal 103 (1984) 151
Folding paper and thermodynamics, M. Mendes France 103 (1984) 161
The formation of fractal objects, M. Nauenberg 103 (1984) 173
The integrability problem and the Hamilton–Jacobi equation: A review, G. Gallavotti 103 (1984) 177
First results from the Ising Monte Carlo processor, R. Pearson 103 (1984) 185
Numerical simulation on the ICL distributed array processor, D.J. Wallace 103 (1984) 191
The strategy for computing the hadronic mass spectrum, G. Parisi 103 (1984) 203
Hadron masses in lattice QCD: A progress report, R. Petronzio 103 (1984) 213
Finite fermion density on the lattice, P. Hasenfratz and F. Karsch 103 (1984) 219
Self-avoiding walks, L. Peliti 103 (1984) 225
Analytic calculation of the mass gap in O(n) non-linear σ-models, M. Lüscher 103 (1984) 233
Random surfaces and the quantum Liouville theory, A. Neveu 103 (1984) 235
The quantum inverse method and the non-local charges in sigma models, H.J. de Vega 103 (1984) 243
Auditory physics. Physical principles in hearing theory. II, E. de Boer 105 (1984) 141
Brain without mind: Computer simulation of neural networks with modifiable neuronal interactions, J.W. Clark, J. Rafelski and J.V. Winston 123 (1985) 215
Thermal denaturation of DNA molecules: A comparison of theory with experiment, R.M. Wartell and A.S. Benight 126 (1985) 67
Dissipation in many-body systems: A geometric approach based on information theory, R. Balian, Y. Alhassid and H. Reinhardt 131 (1986) 1
A review of extended probabilities, W. Mückenheim 133 (1986) 337
High resolution Auger spectroscopy in energetic ion atom collisions, N. Stolterfoht 146 (1987) 315
Dynamic failure of solids, D.R. Curran, L. Seaman and D.A. Shockey 147 (1987) 253
Artificial intelligence and large scale computation: A physics perspective, T. Hogg and B.A. Huberman 156 (1987) 227
Statistical mechanics of neural networks, J.W. Clark 158 (1988) 91
Distributed optical-fibre sensors for the measurement of pressure, strain and temperature, A.J. Rogers 169 (1988) 99
Mechanochemical models for generating biological pattern and form in development, J.D. Murray, P.K. Maini and R.T. Tranquillo 171 (1988) 59
Common trends in statistical physics and field theory, Proc. Cargèse Advanced Research Workshop, C. Itzykson, S. Kirkpatrick, G. Parisi, N. Sourlas and M.A. Virasoro (editors) 184 (1989) 99

Networks in immunology, G. Parisi 184 (1989) 283
Test of a probabilistic model of evolutionary success, H. Epstein and D. Ruelle 184 (1989) 289
Random boolean networks for autoassociative memory, D. Sherrington and K. Wong 184 (1989) 293
Categorization in neural networks and prosopagnosia, M.A. Virasoro 184 (1989) 301
Selected topics in fluctuational kinetics of reactions, A.S. Mikhailov 184 (1989) 307
Flow measurements by NMR, A. Caprihan and E. Fukushima 198 (1990) 195

Geophysics, astronomy and astrophysics

The possible role of elementary particle physics in cosmology, R. Omnès 3 (1972) 1
Pulsars, D. ter Haar 3 (1972) 57
The atmospheres of the Earth and the terrestrial planets: their origin and evolution, A.J. Meadows 5 (1972) 197
Multiple production of hadrons at cosmic ray energies (experimental results and theoretical concepts), E.L. Feinberg 5 (1972) 237
Plasma processes in the Universe, S.A. Kaplan and V.N. Tsytovich 7 (1973) 1
Plasma physics of the solar atmosphere, S.A. Kaplan, S.B. Pikel'ner and V.N. Tsytovich 15 (1974) 1
Plasma turbulent reactors: an astrophysical paradigm, C.A. Norman and D. ter Haar 17 (1975) 307
Some recent developments in cosmic rays, A.M. Hillas 20 (1975) 59
Hadronic interactions and cosmic radiation at energies above 10^5 GeV, C.B.A. McCusker 20 (1975) 229
Spiral structure and the dynamics of galaxies, E. Dekker 24 (1976) 315
Reversals of the Earth's magnetic field, J.A. Jacobs 26 (1976) 183
Gravitons in Minkowski space-time. Interactions and results of astrophysical interest, G. Papini and S.R. Valluri 33 (1977) 51
Gravitational waves and the detection of gravitational radiation, V.B. Braginsky and V.N. Rudenko 46 (1978) 165
Bounds on the mass and moment of inertia of non-rotating neutron stars, J.B. Hartle 46 (1978) 201
Magnetospheric physics, K. Schindler and J. Birn 47 (1978) 109
Recent developments in meteorological physics, R.R. Rogers and G. Vali 48 (1978) 65
Thermal properties and detectability of neutron stars – I. Cooling and heating of neutron stars, S. Tsuruta 56 (1979) 237
X-ray from neutron stars, G. Börner 60 (1980) 151
On the density wave theory for normal spiral galaxies, G. Bertin 61 (1980) 1
Modulational instabilities in astrophysics, D. ter Haar and V.N. Tsytovich 73 (1981) 175
Survey of cosmological models with gravitational, scalar and electromagnetic waves, M. Carmeli, Ch. Charach and S. Malin 76 (1981) 79
Cosmic gamma-ray bursts, F. Verter 81 (1982) 293
Massive neutrinos, P.H. Frampton and P. Vogel 82 (1982) 339
Chaotic behaviour in general relativity, J.D. Barrow 85 (1982) 1
Asymptotic solutions and spectral theory of linear wave equations, J.A. Adam 86 (1982) 217
A slice theorem for the space of solutions of Einstein's equations, J. Isenberg and J.E. Marsden 89 (1982) 179
Astronomical speckle imaging, R.H.T. Bates 90 (1982) 203
Gravitational interactions between galaxies, S.M. Alladin and K.S.V.S. Narasimhan 92 (1982) 339
Charged particle reaction cross sections and nucleosynthesis, D.G. Sargood 93 (1982) 61
General relativistic axisymmetric rotating systems: coordinates and equations, J.M. Bardeen and T. Piran 96 (1983) 205

Gamma-ray astrophysics, J.I. Trombka and C.E. Fichtel 97 (1983) 173
Neutrino exploration of the Earth, A. De Rújula, S.L. Glashow, R.R. Wilson and G. Charpak 99 (1983) 341
Quantum cosmology via path integrals, J.V. Narlikar and T. Padmanabhan 100 (1983) 151
Single star evolution I. Massive stars and early evolution of low and intermediate mass stars, I. Iben Jr. and A. Renzini 105 (1984) 329
The physics of extragalactic radio sources, D.S. De Young 111 (1984) 373
The spiral structure of galaxies, E. Athanassoula 114 (1984) 319
Applications of non-linear methods in astronomy, P.C.H. Martens 115 (1984) 315
The T Tauri stars, M. Cohen 116 (1984) 173
Cosmic strings and domain walls, A. Vilenkin 121 (1985) 263
X-rays from accreting neutron stars, S. Hayakawa 121 (1985) 317
Active galactic nuclei I. Observations and fundamental interpretations, P.J. Wiita 123 (1985) 117
OH/IR stars, J. Herman and H.J. Habing 124 (1985) 255
Ideal observational cosmology, G.F.R. Ellis, S.D. Nel, R. Maartens, W.R. Stoeger and A.P. Whitman 124 (1985) 315
Response theory of particle–anti-particle plasmas, V. Kowalenko, N.E. Frankel and K.C. Hines 126 (1985) 109
Magnetohydrodynamic theories of magnetic field reconnection, B.K. Shivamoggi 127 (1985) 99
Helical inverse cascade in three-dimensional turbulence as a fundamental dominant mechanism in mesoscale atmospheric phenomena, E. Levich and E. Tzvetkov 128 (1985) 1
Recent developments in asteroid science, N. Eaton 132 (1986) 261
Stellar dynamics and the description of stellar systems, H. Dejonghe 133 (1986) 217
Interpreting the wave function of the Universe, F.J. Tipler 137 (1986) 231
Magnetic fields in stars, D. Moss 140 (1986) 1
In search of the supermassive magnetic monopole, D.E. Groom 140 (1986) 323
^{26}Al in the interstellar medium, D.D. Clayton and M.D. Leising 144 (1987) 1
The cosmic X-ray background, E. Boldt 146 (1987) 215
Extragalactic magnetic fields, E. Asseo and H. Sol 148 (1987) 307
Experimental particle physics without accelerators, J. Rich, D. Lloyd Owen and M. Spiro 151 (1987) 239
The properties and the nature of ball lightning, B.M. Smirnov 152 (1987) 177
Particle acceleration at astrophysical shocks: A theory of cosmic ray origin, R. Blandford and D. Eichler 154 (1987) 1
Effects of mass loss on the late stages of stellar evolution, Sun Kwok 156 (1987) 111
Very high energy gamma-ray astronomy, T.C. Weekes 160 (1988) 1
Magnetic field generation in celestial bodies, A.Z. Dolginov 162 (1988) 337
Theory of supernovae, G.E. Brown (editor) 163 (1988) 1
Foreword, G.E. Brown 163 (1988) 3
Presupernova evolution of massive stars, K. Nomoto and M. Hashimoto 163 (1988) 13
Collapse calculations in stars of mass less than $15M_{\odot}$, E. Baron 163 (1988) 37
General relativistic core collapse with a soft nuclear equation of state, S.A. Bludman 163 (1988) 47
Convection, type II supernovae, and the early evolution of neutron stars, A. Burrows and J.M. Lattimer 163 (1988) 51
Convection in core collapse supernovae, J.R. Wilson and R.W. Mayle 163 (1988) 63
Presupernova models: sensitivity to convective algorithm and Coulomb corrections, S.E. Woosley and T.A. Weaver 163 (1988) 79
Neutrinos in supernovae, J. Cooperstein 163 (1988) 95
Neutrino transport in stellar collapse, E.S. Myra 163 (1988) 127

Observation of SN1987A by neutrino light, F. Reines and J. VanderVelde 163 (1988) 137
Neutrino diffusion, primordial nucleosynthesis and the *r*-process, J.H. Applegate 163 (1988) 141
Gamma-ray bursts and glitching neutron stars, R.I. Epstein 163 (1988) 155
The equation of state of dense matter, G.E. Brown 163 (1988) 167
Magnetohydrodynamics in solar coronal and laboratory plasmas: A comparative study, P.K. Browning 169 (1988) 329
Interferometric imaging in optical astronomy, F. Roddier 170 (1988) 97
Cygnus X-3, a critical review, J.-M. Bonnet-Bidaud and G. Chardin 170 (1988) 325
Molecular collision processes in interstellar clouds, D.R. Flower 174 (1989) 1
The physics of double layers and their role in astrophysics, M.A. Raadu 178 (1989) 25
Radiative-resonant collective wave–particle interactions, V.N. Tsytovich 178 (1989) 261
The heating of the high latitude ionosphere by high power radio waves, T.R. Robinson 179 (1989) 79
Comptonization in strongly magnetized and nonmagnetized plasmas, G.G. Pavlov, Yu.A. Shibanov and P. Mészáros 182 (1989) 187
The energetics of black holes in electromagnetic fields by the Penrose process, S.M. Wagh and N. Dadhich 183 (1989) 137
Interplanetary plasma irregularities and ion acoustic turbulence, L.G. Genkin and L.M. Erukhimov 186 (1990) 97
Dark matter detection, P.F. Smith and J.D. Lewin 187 (1990) 203
New physics from Supernova 1987A, D.N. Schramm and J. W. Truran 189 (1990) 89
Inflation, K.A. Olive 190 (1990) 307
Spallation processes and nuclear interaction products of cosmic rays, R. Silberberg and C.H. Tsao 191 (1990) 351
The topology of large-scale structure in the universe, A.L. Melott 193 (1990) 1
Windows on the axion, M.S. Turner 197 (1990) 67
Astrophysical methods to constrain axions and other novel particle phenomena, G.G. Raffelt 198 (1990) 1
The significance of microwave observations for the planets, I. de Pater 200 (1991) 1
Interstellar molecules, J. Lequeux and E. Roueff 200 (1991) 241

JOURNALS IN PHYSICS - 1991

Applied Surface Science
Volumes 47-54 in 32 issues. Price: US $1460.75/Dfl.2600.00

Chemical Physics
Volumes 149-157 in 27 issues. Price: US $1972.00/Dfl.3510.00

Chemical Physics Letters
Volumes 175-185 in 66 issues. Price: US $2997.25/Dfl.5335.00

Computer Physics Communications
Volumes 61.65 in 15 issues. Price: US $1446.75/Dfl.2575.00

Fluid Dynamics Research
Volumes 8 and 9 in 12 issues. Price: US $348.25/Dfl.620.00

Journal of Crystal Growth
Volumes 105-113 in 36 issues. Price: US $3539.50/Dfl.6300.00

Journal of Luminescence
Volumes 49-51 in 18 issues. Price: US $699.75/Dfl.1245.00

Journal of Magnetism and Magnetic Materials
Volumes 94-102 in 27 issues. Price: US $2199.50/Dfl.3915.00

Journal of Non-Crystalline Solids
Volumes 127-136 in 30 issues. Price: US $2163.00/Dfl.3850.00

Journal of Nuclear Materials
Volumes 176-184 in 27 issues. Price: US $2199.50/Dfl.3915.00

Materials Letters
Volumes 10 and 11 in 24 issues. Price: US $393.50/Dfl.700.00

Materials Science Reports
Volumes 6 and 7 in 16 issues. Price: US $376.50/Dfl.670.00

Nuclear Instruments and Methods in Physics Research - Section A
Accelerators, Spectrometers, Detectors and Associated Equipment
Volumes 297-309 in 39 issues. Price: US $4309.00/Dfl.7670.00

Nuclear Instruments and Methods in Physics Research - Section B
Beam Interactions with Materials and Atoms
Volumes 53-61 in 36 issues. Price: US $2983.25/Dfl.5310.00
Reduced combined 1991 subscription to Nuclear Instruments and Methods in Physics research - A and B:
Price: US $6612.75/Dfl.11,770.00

Nuclear Physics A
Volumes 521-535 in 60 issues. Price: US $4255.75/Dfl.7575.00

Nuclear Physics B
Volumes 347-365 in 57 issues. Price: US $5390.50/Dfl.9595.00
Reduced combined 1991 subscription to Nuclear Physics A and B:
Price: US $7927.00/Dfl.14,110.00

Nuclear Physics B - Proceedings Supplements
Volumes 19-23 in 10 hardcover issues
Price: US $702.25/Dfl.1250.00
Reduced 1991 subscription if combined with Nuclear Physics B or Nuclear Physics A and B: US $578.75/Dfl.1030.00

Optics Communications
Volumes 80-85 in 36 issues. Price: US $1230.50/Dfl.2190.00

Physica A - Statistical and Theoretical Physics
Volumes 170-179 in 30 issues. Price US $1994.50/Dfl.3550.00

Physica B - Condensed Matter Physics
Volumes 168-174 in 28 issues. Price: US $1396.25/Dfl.2485.00

Physica C - Superconductivity
Volumes 172-184 in 78 issues. Price: US $2592.75/Dfl.4615.00

Physica D - Nonlinear Phenomena
Volumes 47-52 in 18 issues. Price: US $1196.75/Dfl.2130.00
Reduced rates are available for combined subscriptions to Physica - please contact the publisher for details.

Physics Letters A
Volumes 150-159 in 90 issues. Price: US $1685.50/Dfl.3000.00

Physics Letters B
Volumes 253-271 in 76 issues. Price US $3202.25/Dfl.5700.00

Physics Reports (including Computer Physics Reports)
Volumes 201-214 in 84 issues. Price: US $2359.75/Dfl.4200.00
Reduced combined 1991 subscription to Physics Letters A, Physics Letters B & Physics Reports: Price: US $6281.00/Dfl.11,180.00

Solar Energy Materials
Volumes 23 and 24 in 8 issues. Price: US $320.25/Dfl.570.00

Solid State Ionics
Volumes 44-50 in 28 issues. Price: US $1180.00/Dfdl.2100.00

Surface Science
Volumes 241-257 in 51 issues. Price: US $4145.75/Dfl.7395.00

Surface Science Reports
Volume 14 in 8 issues. Price: US $182.75/Dfl.325.00
Reduced combined 1991 subscription to Surface Science (including Surface Science Letters), Applied Surface Science and Surface Reports: US $5368.00/Dfl.9555.00

Ultramicroscopy
Volumes 37-41 in 20 issues. Price: US $955.25/Dfl.1700.00

Please note that prices are subject to exchange rate fluctuations. The Dutch guilder price is definitive, unless otherwise stated. All prices include postage & handling charges. Please contact the publisher for information on delivery rates.

NORTH-HOLLAND

(ELSEVIER SCIENCE PUBLISHERS)

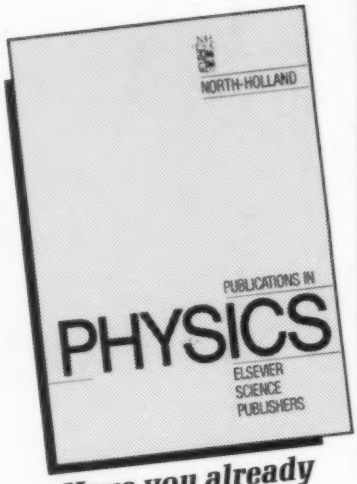
P.O. Box 103, 1000 AC Amsterdam, The Netherlands

Elsevier Science Publishers, Journal Information Center, PO Box 882, Madison Square Station, New York, NY 10159, U.S.A.

404/j/jnls.105

NORTH-HOLLAND PHYSICS PUBLICATIONS

at a Glance



Have you already received our catalogue?

NORTH-HOLLAND
(Elsevier Science Publishers)

P.O.Box 103
1000 AC Amsterdam
The Netherlands

Customers in the U.S.A. and Canada please contact:
Elsevier Science Publishing Co. Inc.
655 Avenue of the Americas
New York, NY 10010

Journals:

Applied Surface Science
Chemical Physics
Chemical Physics Letters
Computer Physics Communications
Fluid Dynamics Research
Journal of Crystal Growth
Journal of Luminescence
Journal of Magnetism and Magnetic Materials
Journal of Non-Crystalline Solids
Journal of Nuclear Materials
Materials Letters
Materials Science Reports
Nuclear Instruments and Methods in Physics Research
Section A: Accelerators, Spectrometers, Detectors and Associated Equipment
Section B: Beam Interactions with Materials and Atoms
Nuclear Physics A
Nuclear Physics B
Nuclear Physics B - Proceedings Supplements
Optics Communications
Physica A - Statistical and Theoretical Physics
Physica B - Condensed Matter Physics
Physica C - Superconductivity
Physica D - Nonlinear Phenomena
Physics Letters A
Physics Letters B
Physics Reports
Solar Energy Materials
Solid State Ionics
Surface Science
Surface Science Letters
Surface Science Reports
Ultramicroscopy

Indispensable Handbooks:

Handbook on Ferromagnetic Materials
Handbook on Semiconductors
Handbook on Synchrotron Radiation
Handbook on the Physics and Chemistry of the Actinides
Handbook of Plasma Physics
Laser Handbook

Book Series:

Cohesion and Structure
Current Physics - Sources and Comments
Defects in Solids
Dislocations in Solids
Dynamical Properties of Solids
Enrico Fermi International School of Physics
Les Houches Summer School of Theoretical Physics
Materials Processing: Theory and Practices
Modern Problems in Condensed Matter Sciences
Niels Bohr Collected Works
North-Holland Delta Series
North-Holland Personal Library
Progress in Low Temperature Physics
Progress in Optics
Random Materials and Processes
Selected Topics in Solid State Physics
Studies in Mathematical Physics
Studies in Statistical Mechanics

...and of course a large variety of books.